Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

December 12, 1960

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- Our best wishes for a very successful and prosperous New Year

FROM
ROCHE
ROUND THE WORLD

Oil, Paint and Drug Reporter

Vol. 178 No. 25 30 Church St., New York 7, N. Y. December 12, 1960

Hydrazine Breakthrough?

Has a price breakthrough been achieved for hydrazine?

The Air Force, which holds a multi-million-pound contract for the high-energy fuel with Olin Mathieson Chemical Corporation, would like to know. And so would hydrazine producers, whose current price for anhydrous material is around $2 a pound.

A claim by Aerojet-General Nucleonics that it can turn out the material via nuclear fission of ammonia at a price of 25 cents is raising some skeptical eyebrows in the trade, but no one says flatly it can't be done.

Aerojet earlier had forecast a price of 50 cents a pound for the fission-produced material.

One comment from the trade characterizes the price projection as premature. The contention is that it is based on an optimistic assessment of cost data.

This hubbub follows in the wake of a progress report by Aerojet at last week's meeting of the American Institute of Chemical Engineers in Washington.

Marvin R. Gustavson, physical chemist for the company at San Ramon, Calif., predicted at the meeting that the hydrazine project would lead to "significant scientific achievements and much needed products at a price we can afford."

As yet, he conceded, only small amounts of hydrazine have been recovered, and further pilot studies will be necessary to establish certain aspects of the method's commercial feasibility.

One of the unknowns, he said, is whether or not the hydrazine so produced will be radioactive. A high degree of radioactivity may be too hazardous for missile use, it was noted.

In the pilot project now under way, Mr. Gustavson explained, a

—Continued on page 64

ICA Dollars Are Coming Home And They Are Going to Land In the Chemical Industry's Lap

ICA dollars are coming back home! And many of them are going to land right in the lap of the American chemical industry. That is the prospect blooming in Washington these days, following a tough State department order just issued to International Cooperation Administration. Burden of the dictum is this: Spend American money in America and not in the big, rich chemical-producing countries abroad that are the aggressive competitors of the American chemical industry.

The State department has put together a list of eighteen countries and Hong Kong—which had for years been gobbling up most of the ICA business—and decided that no more US funds will be spent with them.

Money for Small Countries

The money for the large chemical orders will have to go to the small countries—maybe Jordan, maybe Iceland, or maybe even Ghana—and if they can't fill them, it will have to be returned to the United States to be spent. So says Uncle Sam, and he says it a little bit slyly.

Impetus for the order came with the administration's recent "Buy American" program, which is being aimed at curbing the outflow of US gold.

As far as chemicals are concerned, much of that gold has gone out of the country recently—to such giant chemical producers as England, Italy and West Germany.

The overall effect of the order involves about $400 million of foreign aid funds programmed for spending abroad under the mutual security program.

The net effect, however, is not expected to slow down the outflow of gold by more than about $200 million because of the many ways that the countries involved will have to change their spending habits.

The net effect on chemicals and related products is even more of a guess, but some idea of the amounts involved may be gained from these latest figures of the ICA.

In fiscal year 1360, which ended last June 30, ICA financed the purchase of

—Continued on page 41

MOBAY'S NEW PRESIDENT: J. D. Mahoney, director of marketing for Mobay Chemical Company, Pittsburgh, Pa., who will become president of the concern January 1.

Tall Oil Fatty Acid Use in 1965 Is Seen Hitting 230 Million Pounds

Tall oil fatty acid consumption, now running at about 165 million pounds annually, should hit 230 million pounds by 1965. Prodding it ahead will be steady growth of the alkyd market, invasion of new areas of the coatings business, and increasing usage in soaps and other saponified acid products. What's more, while many competitive chemicals can be expected to be under increasing pressure from European imports, the threat here is minimal. The continent's production of tall oil fatty acids is less than 20 percent of the US rate.

Such was the rosy consensus of views, backed by voluminous facts and figures, arising out of a panel discussion on "Tall Oil Products in the Markets of the '60's," sponsored in New York last week by the Northeast section of the American Oil Chemists' Society.

An Authority Looks at Percentages

Comparing the tall oil acid with competitive products, David R. Eagleson, of Emery Industries, Inc., predicted an annual growth of 2.5 percent for oleic and vegetable fatty acids, as against 7 percent for low rosin tall oil acids.

Mr. Eagleson also had this to say:

- Exports of crude tall oil will continue to decrease as greater quantities are fractionated here.
- Soybean oil, competitor to tall acids for alkyd use, will remain at a relatively high world price level, encouraging increased use of the pulp-derived chemical abroad.
- A favorable price position vis-a-vis tallows and greases, plus improved quality, will encourage large volume exports

—Continued on page 48

ASS'T DIVISION MANAGER: J. R. Eck, president of Mobay Chemical Company, who is returning to Monsanto Chemical Company January 1 as assistant general manager of its plastics division in Springfield, Mass. Mobay is owned jointly by Monsanto and Farbenfarbriken Bayer AG of West Germany.

Rexall Wants More Polystyrene Capacity

Rexall Chemical Company, which already has some 45 million pounds of polystyrene capacity, wants some more of same. What it now has in mind is a new 25-million-pound facility. Likely site: somewhere in the Chicago area.

Meanwhile, the Rexall Drug & Chemical Company division intends to waste no time about getting into the polyethylene resins business.

Pending completion of its own 120-million-pound plant at Odessa, Tex., sometime in the first quarter of 1962, Rexall will start marketing a complete line of polyethylene in '61 under resale arrangements with several producers of the plastic.

The new polystyrene facility, due to

—Continued on page 61

Int'l Minerals Is Set To Buy Up Bioferm

International Minerals & Chemicals Company, reportedly the nation's biggest producer of pure monosodium glutamate, has just made arrangements to acquire Bioferm Corporation, a pioneer in the fermentation field.

IMC is currently scaling up to commercial production on a low-cost fermentation process for monosodium glutamate.

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Medical Care and Education Top HEW Agenda: Ribicoff

Secretary-designate of Health, Education & Welfare Abraham Ribicoff expects medical care for the aged and federal aid to education to be the main points of interest to his department in congress next year.

Following a three-hour indoctrination meeting with HEW Secretary Arthur Flemming, whom he will replace in the Kennedy administration, Mr. Ribicoff refused to discuss any future appointments to the department or his plans of administering the agency's affairs.

He did say he considered his appointment to be one of the most challenging posts in the government because states probably have more dealings with HEW than with any other federal agency.

ICI Eyes Soviet Process For Making Caprolactam

Imperial Chemical Industries, Ltd., will open negotiations to acquire rights to a Soviet process for production of caprolactam, Stanley P. Chambers, chairman of ICI, told a press conference in Moscow last week according to press reports in London.

Mr. Chambers also indicated that ICI hopes to double "or quadruple" its trade with Russia over the next two or three years. ICI expects to ship about $8.4 million of exports to Russia this year, against $5.6 million last year. Mr. Chambers flew to Moscow for a round of conferences with Russian trade officials engaged in buying chemicals and chemical processes.

The caprolactam license would cover a Soviet process reported to be cheaper than existing processes used by ICI. Caprolactum is a raw material for produc-

—Continued on page 63

Montecatini PA Unit Up

A 22-million-pound-a-year phthalic anhydride plant has been completed at Cengio, Italy, for Aziende Colori Nazionali Affini, a subsidiary of Montecatini. The unit was designed, engineered and constructed by Badger Manufacturing Company, Cambridge, Mass.

Epoxidation Expansion Slated by Swift & Co.

Swift & Co. is going to add 8 million pounds of epoxidation capacity to its facilities in Hammond, Ind.

The company has started construction of a major addition to its plant and aims to have it in operation early in 1961.

By combining existing production facilities with the new unit, Swift will be able to offer a complete line of high oxirane epoxidized oils and fatty esters.

"Epoxol 7-4," a high purity epoxidized soybean oil, was the Chicago-based company's first entry in this briskly expanding field.

Drug Makers Get Deadline on Medical Claims

Drug manufacturers have just been given a deadline by Food & Drug Administration: thirty days in which to change their promotional literature, oral detailing and advertising copy to jibe with the medical claims of their drugs. Failing in this, they must stop their present disseminating and detailing habits.

An additional sixty days, or until March 9, has been granted by the agency to manufacturers to revise the labels of their prescription drugs to give physicians more information about the make-up of such drugs.

The period of grace will also provide for a code numbering system that will permit the history of a drug to be easily traced.

These deadlines were fixed in orders published by FDA in the *Federal Register* December 9 revising existing new drug regulations in many respects, largely as an outgrowth of the investigations of the Kefauver committee last summer. As published in final form, the regulations differ in only a few minor respects from those issued tentatively on July 22.

The thirty-day period for the industry to bring its selling tactics in line with official representation made for their drugs runs out January 8 and represents the minimum grace period allowed under the administrative procedures act. FDA officials said they could see no justification for allowing any additional time because manufacturers cannot bring themselves into compliance immediately by discontinuing practices not allowed by the regulations.

No action was taken by FDA on one of the biggest controversies in the regulations. This has to do with the question of requiring manufacturers to include informative inserts in every sales package of

—Continued on page 53

Chemical Men Buck the Tide: They Spend Where Others Don't

Chemical producers appear to be bucking the tide of tight-fisted industry sentiment on the advisibility of spending for new plants and equipment during the final six months of this year. Latest government figures show chemical producers—unlike most other industries—are within $1 million of their planned capital investments for the last half of the year, which they made almost six months ago while industry generally was retrenching.

Some cut-back in expenditures can be anticipated by the industry in the first quarter of next year below the last quarter of 1960. But, even so, when computed on a seasonally adjusted basis, chemical industry capital spending will be running well ahead of the same period of this year.

Expansion to Be $1.6 Billion

New plant and equipment expenditures, gathered and made public by the Department of Commerce jointly with the Securities & Exchange Commission last week, show that the chemical industry expects to wind up this year with a total expansion of about $1.6 billion, second only to the record year of 1954 when the industry spent $1.724 billion on capital improvements.

Expenditures in the third quarter of this year amounted to $40 million or precisely what the industry estimated it would spend when it reported plans last July. In the final quater of this year, planned expenditures are now fixed at $47 million, or only $1 million short of what was estimated last July.

In the first quarter of 1961, producers say they will spend $39 million. This is $6 million more than was spent in the first quarter of this year, and on a seasonally adjusted annual basis figures out to a program for next year in the neighborhood of $1.7 billion.

The two government agencies, in reporting plans for business generally, said that businessmen have scheduled a modest decline in their capital investment programs in the first quarter of 1961 after revising downward their expenditures on plant and equipment for the second half of this year.

Capital outlays of business are now expected to amount to a seasonally ad-

—Continued on page 63

Sodium Sulfate Output Is Due for an Increase

A new sodium sulfate production unit will be on stream by next summer. West End Chemical Company, a division of Stauffer Chemical Company, has just started construction of another unit at Westend, Calif.

The expansion will raise the company's sodium sulfate output to 200,000 tons per year. The current addition is the company's third sodium sulfate expansion.

Hooker to End Own Distributor Operation

Operations of Marble-Nye Company, a wholly-owned subsidiary of Hooker Chemical Corporation, will be discontinued shortly after the first of the year. Marble-Nye has been a key distributor of industrial chemicals to the New England market.

John S. Coey, corporate vice-president and general manager of the eastern chemical division, points out that if it had not discontinued the operation, Hooker "would be competing with many of its chemical distributors in the highly-competitive New England market."

The decision to terminate operations "was made with great regret and only after the most careful study," a spokesman for New York-based Hooker states.

Arrangements are being worked out with Marble-Nye customers to furnish them with a continuing source of chemicals, Mr. Coey adds.

Some of the employees involved will be retained to staff a New England sales office of Hooker which, according to present plans, will be located in Worcester, Mass. Sales and service of Hooker Chemicals in the area will be handled by this office.

Enka to Hike Capacity For Heavy-Gauge Nylon

American Enka Corporation has slated a multi-million dollar expansion of its nylon yarn capacity at Enka, N. C. The company is currently completing an expansion to 6 million pounds annually, which is expected to come on stream in the second quarter of 1961.

The new boost, will carry Enka's nylon yarn capacity 70 percent above that level. The material will be a heavy-gauge type.

Ethyl's Canadian Facility Ready to Come on Stream

An ethyl chloride-ethylene dichloride plant has been completed at Sarnia, Ontario, for Ethyl Corporation of Canada, Ltd. Construction of the unit was begun last September by Canadian Badger Company, Ltd.

A spokesman for Ethyl terms this another step in ending Canada's reliance upon sources outside the country for antiknock compound components. The first step, he says, was taken when Ethyl began the first Canadian production of tetraethyl lead almost four years ago.

The new plant has been readied for operation and will go on stream as the necessary raw materials become available, the company reports.

The Week's Price Changes

Carnauba Wax, Corn Oil, Linseed Meal, Olive Oil Advanced. Amyris Oil, Coconut Oil, Copra, Soybean Meal Reduced.

Prices Advanced

Carnauba wax, chalky, 1c. per lb. (p. 65).
No. 3, crude, Ceara, 1c. per lb. (p. 65).
Parnahyba, 1c. to 2c, per lb. (p. 65).
Corn oil, crude, ¼c. per lb. (p. 65).
Refd., ¼c. per lb. (p. 65).
Cottonseed oil, crude, ½c. per lb. (p. 65).
Refd., ½c. per lb. (p. 65).
Ethyl vanillin oil, $1.10 per lb. (p. 60).
Lemongrass oil, 30c. per lb. (p. 60).
Linseed meal, 50c. per ton (p. 65).
Liseed oil, 3/10c. per ton (p. 65).
Linseed oil acid, 3/10c. per lb. (p. 65).
Ocotea cymbarum oil, 1c. per lb. (p. 60).
Olive oil, spot, 10c. per gal. (p. 65).
Peanut oil, crude, ½c. per lb. (p. 65).
Refd., ½c. per lb. (p. 65).
Soybean oil, crude, ½c. per lb. (p. 65).
Refd., ½c. per lb. (p. 65).
Vanillin oil, 50c. per lb. (p. 60).
Wormseed oil, 25c. per lb. (p. 60).

Prices Reduced

Amyris oil, 5c. per lb. (p. 60).
Coconut oil, crude, ¾c. per lb. (p. 65).
Refd., ½c. per lb. (p. 65).
Copra, $5 per ton (p. 65).
Lavender oil, Spanish spike, 45c. per lb. (p. 60).
Petitgrain oil, 10c. per lb. (p. 60).
Sage oil, clary, $3 per lb. (p. 60).
Soybean meal, 50c. per lb. (p. 65).
Tin metal, Straits, 1c. per lb. (p. 42).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Dec. 9, 1960	Dec. 4, 1960	Dec. 11, 1959
108.90	108.80	111.67

Water Pollution: 'Hit It Jointly'

A joint attack on water pollution problems and stepped up efforts to lessen this threat to public health have just been urged on the chemical industry. K. S. Watson, of General Electric Company, suggested during an environmental health symposium of the American Institute of Chemical Engineers last week that the Water Pollution Federation get together with the industrial committees of the three key chemical associations to pool their efforts in the fight against pollution. Overall, he said, waste treatment must be intensified because of the nation's dependence on water resources for growth and expansion.

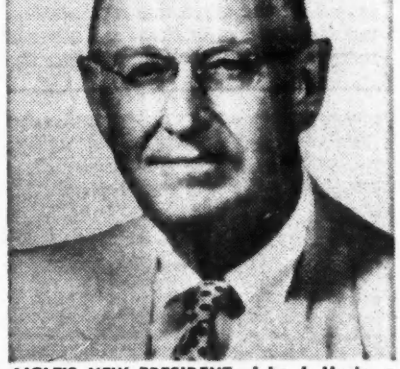
Make-Up of Water Pollution Federation

Mr. Watson, consultant for water management and waste control at GE, noted that the Water Pollution Federation is made up of the pollution and waste chemistry committees of AIChE, the American Chemical Society and Manufacturing Chemists' Association.

"It would seem," he told fellow panelists, "that a joint approach which would bring together all the pertinent organizational resources in a loose-knit united effort should insure the ultimate in progress."

Setting the stage for the panel in Washington, D. C., last week was John E. Hull, president of MCA. In an address before the engineering group's annual meeting he acknowledged the chemical industry's key responsibility in pollution abatement but found that the problems

—Continued on page 58



AIChE'S NEW PRESIDENT: John J. Healy, a member of the corporate planning group of Monsanto Chemical Company, who last week was named president of the American Institute of Chemical Engineers for the coming year.

Monsanto's New Acid Unit To Be First on West Coast

Monsanto Chemical Company plans to install what is reportedly the West Coast's first phenolsulfonic acid unit at its plant in Avon, Calif. Construction is slated to begin immediately, with start-up in March, 1961.

The new unit will increase Monsanto's overall capacity by about 50 percent. The acid is now manufactured by the company only at Monsanto, Ill.

The Avon plant turns out phenol, sulfuric acid, sodium sulfate and sodium sulfite.

Johnson to Head J&J

Robert W. Johnson, jr. has been named president of Johnson & Johnson, New Brunswick, N.J. He will succeed George F. Smith, who is retiring from the post at year's end. Mr. Johnson has been executive vice-president and general manager of the manufacturer of surgical dressings, baby and allied products since January 1 of this year.

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OIL, PAINT AND DRUG REPORTER, Vol. 178, No. 25, December 12, 1960. Published weekly on Monday except semi-weekly the last week in February and the last week in August by Schnell Publishing Company, Inc., 30 Church Street, New York 7, N. Y., U.S.A. Second-Class postage paid at New York, N. Y. Single copy price: 50 cents. Subscription prices:—United States and Possessions, $5 a year; Canada and Newfoundland, $7; other countries, $12. Copyright, 1960, Schnell Publishing Company, Inc.

AMSCO VICE-PRESIDENT: Richard R. Degraf, elected vice-president of American Mineral Spirits Company, Western, Los Angeles.

Methacrylate Output On Commercial Basis

Escambia Chemical Corporation has flashed the green light for commercial production of methacrylates. The decision to go commercial follows ten years of development work on a new process and four years of looking the market over.

Escambia, which has expressed interest in licensing its isobutylene-nitric acid process abroad, will become the third US commercial producer in this field. Others are E. I. duPont de Nemours & Co., and Rohm & Haas Company, both of which start with acetone and hydrogen cyanide.

Construction of the new facility will get under way in mid-1961 and take twelve to eighteen months to complete.

Site selection has not been made yet, but a spokesman for the company says the choice has narrowed down to three general areas. One is Pensacola, Fla., site of the company's semi-commercial methacrylate unit, which went on stream last spring. The others are the Gulf Coast; and northern US, with emphasis on the area between New York and Chicago.

Products to come out of the new unit include "Hiba" (alpha-hydroxyisobutyric acid), methacrylic acid and its esters. The first of these is available now in development quantities. The others will be turned out for experimental use in the near future, the company reports.

Petrochemical Debut Slated For Mid-'61 by Oil Company

Tennessee Oil Refining Company expects to be in the petrochemical business by mid-1961. The company, a division of Tennessee Gas Transmission Company, last week awarded contracts for its first aromatic production facilities at Chalmette, La.

A catalytic reforming unit, an extraction plant and o-xylene and ethylbenzene fractionation units are being installed, with a mid-1961 start-up target.

The facilities will turn out benzene, ethylbenzene, o-xylene, mixed xylenes and toluene.

Contracts for installation of the catalytic reformer and the o-xylene unit have been let to Bechtel Corporation. The latter facility is rated to produce 22 million pounds yearly.

Badger Manufacturing Company has been awarded contracts for the extration unit, which will have a capacity of 2,200 barrels a day of benzene, toluene and xylene, and for the 20-million-pound-a-year ethylbenzene fractionator.

Food Additives Safety Status: What Is the Price of Proving It, And How Should It Be Done?

Costs of establishing the safety of not only the new but also of the many hundreds of old food additives already on the market—that is the big threat to the suppliers of food in meeting the nutritional needs of the rising world population. The chemical industry's one hope of solving this dilemma lies in governmental action in the field of additives regulation being based on a balanced judgment of risk vs. the benefits of society.

This was the view of Dr. David H. Dawson, vice-president of E. I. duPont de Nemours & Co., Wilmington, Del., in a paper read to the symposium on "Science and Food: Today and Tomorrow," arranged last week by the Food Protection Committee of the National Academy of Sciences, National Research Council.

Lending support to Dr. Dawson's warning that government regulation must not be allowed to discourage research was a paper from Dr. R. Blackwell Smith, jr., president of the Medical College of Virginia, and a member of the Food Protection Committee, cautioning against too broad an interpretation being attached to the matter of "safety."

Delaney Clause Repeal Urged

Dr. William J. Darby, of Vanderbilt University's School of Medicine, favors repeal of the Delaney anti-cancer clause of the food additives law. At the close of a meeting last week of the food protection committee of the National Academy of Sciences, of which he is chairman, he said that the law is too restrictive because the Food & Drug Administration already has authority to do what this law makes mandatory.

Dr. Smith emphasized that "safety" is a matter of degree and is something that can be proven only in a negative sense. He stressed these three facts:

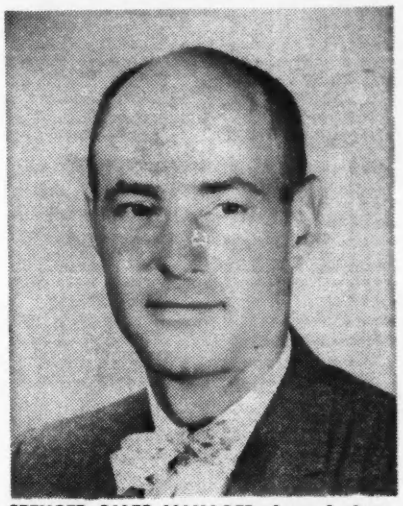
- "Safety in regard to food additives means the scientific establishment of reasonable certainty that a given use of an additive will not be harmful. The goal of safety as here defined is one which can be attained without major difficulty, but not inexpensively or with the celerity which is desirable.
- "Absolute proof of safety of a given use of a food additive cannot be adduced, but the methods used to establish safety are believed to provide data which give far greater assurance of human longevity than do data relative to the safety of riding in automobiles, crossing the street, climbing ladders, standing in the bath or many of the other common activities in which we routinely engage.
- "This country has the world's most abundant and wholesome food supply—convincing evidence that the methods required for assurance of safety have not completely stultified agricultural and food industrial progress, and, further, that these methods have served to guard ef-

—Continued on page 52

DuPont Plans to Close Trichloroethylene Facility

E. I. duPont de Nemours & Co. will close its Wyandotte, Mich., trichloroethylene plant on January 31, and consolidate production at Niagara Falls, N. Y.

A spokesman for duPont notes that the company is employing a new process at the New York location which has made the Wyandotte facility obsolete. Capacity at Niagara Falls is reported adequate to meet all needs.



SPENCER SALES MANAGER: Larry L. Lortscher, named eastern sales manager for Spencer Chemical Company's industrial chemicals division, with headquarters in New York.

FMC's Niagara Unit Plans Pesticide Plant

Aiming at the pesticide needs of southern and central Louisiana, Niagara Chemical Division of Food Machinery & Chemical Corporation is set to do some construction at Opelousas, La. Project: a plant to make agricultural pesticide formulations.

The new unit will be designed to meet the pesticide needs of Southern and central Louisiana. According to Bear it will turn out a wide range of materials for control of pests which each year cause serious economic loss to area growers.

Among the products which the plant will produce will be formulations of DDT, endrin, methyl parathion, malathion, heptachlor, othion, "Thiodan" insecticide and "Tedion" miticide. These will find application in curbing such commonly occurring pests as: cane borer on sugar cane; potato weevil on sweet potatoes; stinkbug

—Continued on page 56

Stauffer, Hewitt-Robins In Polyurethane Venture

Stauffer Chemical Company, New York, and Hewitt-Robins, Inc., Stamford, Conn., will form a new jointly-owned company, Stauffer-Hewitt, Inc., to manufacture and sell polyurethane foam materials.

The new company will purchase the assets of Hewitt-Robins' urethane foam division, including the trade name "Rest-foam," for cash and other considerations.

Manufacturing plant and headquarters for the business are located at Franklin, N.J. Stauffer will own two-thirds of the new company.

Chemical Outlook: A Few Dead Fish, Some Hot Water

Chemical manufacturers and pesticide producers are in hot water again in the running fight over keeping the streams and waterways of the nation safe and pure for recreational use.

Latest to get into the battle is the Public Health Service.

The agency reported last week that first returns from thirty-one states in a survey of water pollution indicate that agricultural pesticides and industrial wastes caused 70 percent of the 185 pollution-caused fish-kills along more than 600 miles of streams and 5,000 acres of lakes. The survey was conducted between June and October of this year.

Fish-Kill Study Continues

PHS is continuing the national collection of reports of fish-kills to get some indication of their prevalence and causes on a nationwide basis.

Fish-kills are deaths of varying numbers of fish in a specific area within a short period of time. They usually occur because of the presence in a river of a foreign substance that destroys the ability of the fish to live.

Foreign matter comes either from the dumping or spilling of a large amount of material such as chemicals, or by the slow accretion of a substance that makes the water intolerable to fish.

This first nation-wide study of stream fish-kills shows that agricultural poisons accounted for the largest number, or seventy-three out of the total 185 state reports.

Industrial wastes are listed as the cause in fifty-seven, domestic sewage was listed fifteen times (or 8 percent) while other causes—pipeline breaks, shipping pollution, etc.—number seventeen fish-kills, and unknown causes twenty-eight. In some instances, one or more causes are listed.

Approximately half of the reports received by the Public Health Service gave estimates of total fish-kills, ranging, with one exception, from 100 to 182,000 and averaging 6,100 fishes per kill by pollution.

One large unrepresentative single pollution kill of 5 million fish (mostly trash and forage types) was caused by industrial wastes in the Kanawha River during two days in August over a distance of nineteen miles.

PHS reports that quarterly summaries of raw data without technical interpretation are being provided state cooperators, the Fish & Wildlife Service, and other organizations and individuals upon request.

Aluminum Chloride Imports Under Scrutiny of Treasury

Shipments of anhydrous aluminum chloride from the Welland Chemical Company, Ltd., Port Colborn, Ontario, to the US market are being investigated by the Treasury Department.

A complaint filed with the federal agency on November 25 charged that sales of the chloride were being made in violation of the anti-dumping laws. Customs collectors have been instructed to withhold further appraisals of the material.

Dollar value of imports of the chloride shipped to the US by the Canadian firm since July amount to $18,000, according to the Treasury.

S&H Trading Stamps Coming With Chemicals

Will duPont executives be pasting trading stamps into a book one of these days?

Do the people at Monsanto covet a new electric toaster that comes for a certain number of S&H Green Stamps?

Circo Corporation, Clark, N. J., thinks so. The organization has just started offering the stamps with purchases of its products, including such materials as degreasing solvents and other industrial cleaning agents.

Chemical executives are watching to see how it will develop. Maybe their wives are watching, too.

FDA's Problems: How Toxic? How Flammable?

Food & Drug Administration has been told specifically how to decide when a product is "highly toxic" and whether it is "extremely flammable." On this score, congress has laid down the law, but what about ordinary toxicity, flammability, corrosiveness?

That, declares William W. Goodrich, is where the agency and the chemical specialties makers themselves share critical responsibility for compliance with the new federal labeling act.

Mr. Goodrich, assistant general counsel for food and drugs in the Department of Health, Education & Welfare, told industry last week that the agency could only proceed on a case-by-case basis.

"Because of the large number of firms and substances that are, potentially at least, subject to the new law," he said, "we are cast into strange waters where we must find our way from a chart with few clear landmarks."

In an address before Chemical Specialties Manufacturers' Association in Hollywood, Fla., Mr. Goodrich confessed that as yet the agency could not offer clear guide lines for devising proper labels. But he was able to spell out the specific steps CSMA members could take to guarantee ultimate compliance with the law.

First, companies were advised to make a complete inventory of products, followed by a scientific evaluation of toxicity, flammability, corrosiveness and irritability.

Next, advised by Mr. Goodrich, decide whether the package is suitable for household use, and then devise a label in accordance with the law.

CSMA members were told next to look for FDA's proposed regulations—soon to be published—and offer constructive comments on them. "When the final regulations are promulgated, use them as an aid to compliance," Mr. Goodrich said.

The most crucial matter, he indicated, involves products for which a company's

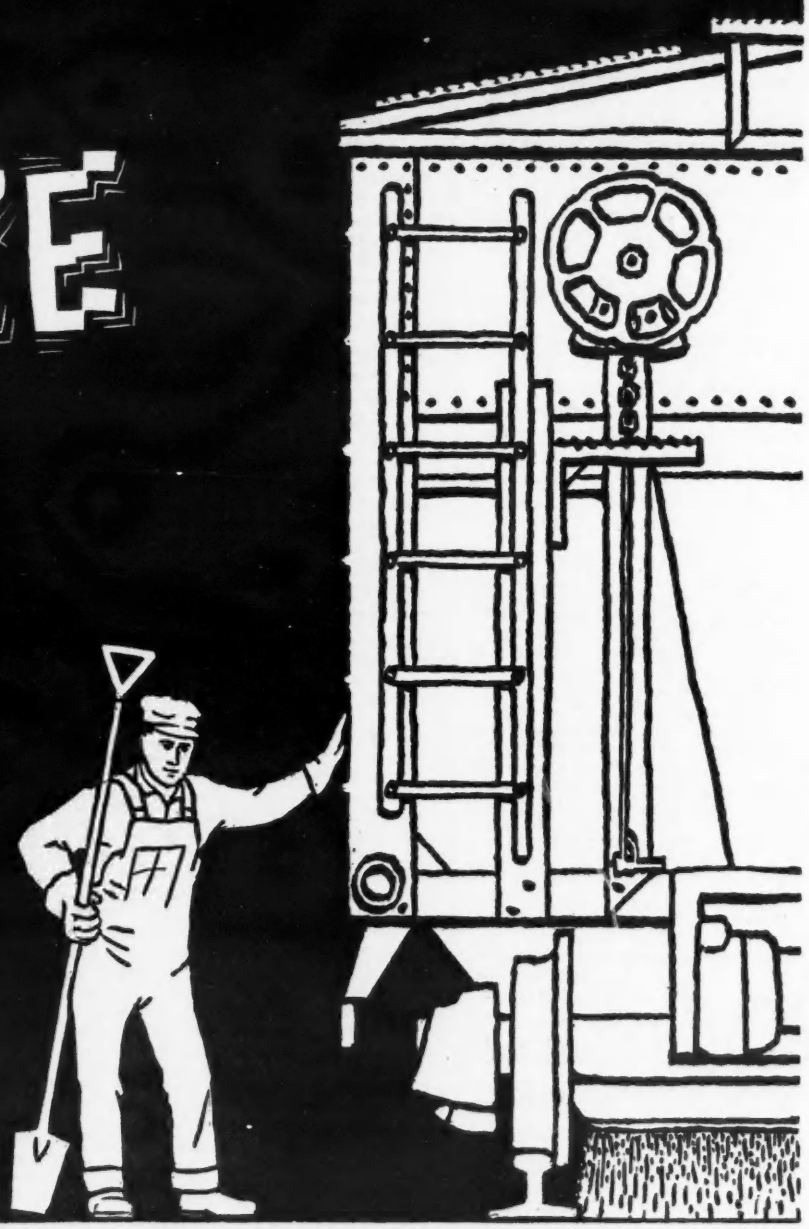
—Continued on page 72

NOT A

SNEEZE

IN A

CARLOAD



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Urethane: The Coats Fit

Golf balls and patent leather shoes, bowling pins and rain coats! The cascade of new urethane coating applications builds toward a landslide, but when will it hit the marketplace?

There's no question about shoes and golfballs, according to word from Union Carbide Chemicals Company. Both are already on the "here" list.

Endicott Johnson Corporation, the shoe manufacturer, has reportedly developed a soft urethane-treated leather which is expected to have 700 percent better wear characteristics than the ordinary leathers.

Well, with such an advantage over the natural product, Carbide is not surprised to hear shoe trade observers predicting that urethanes will capture 50 percent of the men's shoe market by 1965.

Meantime, says Carbide, the 45 million golf balls and the 43 million square feet of patent leather sold annually are due for similar urethane treatment. Also seen edging into the market are urethane floor and wood coverings.

What have urethanes got that other products lack? Plenty, say the men who make them, but it's the combination of ingredients that has the product development managers jumping.

With cross-linked molecules, they're hard, tough and abrasion-resistant (the urethanes). By selecting the type of polyether used, they can be made as stiff or as flexible as the job requires, Carbide points out.

Other significant characteristics: good electrical properties, fast cur-

—*Continued on page 57*

Pesticides Grow Like Prairie Fires? They Did Once, But Maybe No More

Prairie-fire growth of the pesticide business—checked from time to time by an agonizing re-appraisal in the face of over-expansion—may finally be a thing of the past. National Agricultural Chemicals Association has just reported a modest 3 percent rise in pesticide sales for 1960 and, viewing this against the pattern for the previous four years, the association finds evidence that wild and irregular growth may be leveling off into a steady climb. Projecting from the sales level to date, NACA comes up with a 1960 sales total of $285 million at the basic manufacturers' level.

CSMA'S NEW PRESIDENT: Charles E. Beach of John C. Stalfort & Sons, Inc., Baltimore, Md., who was elected president of the Chemical Specialties Manufacturers Association last week.

Despite the steadier trend, NACA finds there were normal ups and downs among particular pesticides in 1960, as product use was adjusted to the severity of pest infestations and the vagaries of weather.

Some Up, Some Down

Whereas insecticide sales dipped somewhat during the year, sales of fungicides and herbicides responded to the wet, cool season with a smart upturn.

Of special interest, says NACA, was the gain in herbicide sales. These were reported up 7 percent over 1959, reflecting a wider use against specific weeds, brush and grasses. A major factor in this increase, and one that should continue to operate in the future, is the steady rise in labor costs for weed and brush control, strengthening the hand of chemicals when

—*Continued on page 45*

Revlon Appoints Soroko

Revlon, Inc., New York, has appointed Mark D. Soroko as senior vice-president. Mr. Soroko has been with the company for twenty-five years, serving as a vice-president for ten years. His new responsibilities include administration of merchandise distribution and contractual relationships.,

ICI Pigment Installation Under Way in Australia

Imperial Chemical Industries of Australia and New Zealand, Ltd., has begun construction of a new $3,375,000 pigments plant near Melbourne, Australia.

The new plant is the first step by ICI in establishing a broadly-based dye industry on the continent. The facility will market coloring material to the paint, inkmaking, plastics, rubber, linoleum and other industries.

OPD Reports From Europe

US Chemical Firms Facing A Cloudier Investment Climate In Europe From Here On

The favorable climate for Amerian investment in Europe, which US chemical companies have been enjoying in recent years, may be clouding over. Triggering this barometric drop is the Ford Motor Company, which today (December 12) is expected to go through with its controversial offer to buy up the remaining publicly-held shares of its British subsidiary for $358.4 million in pounds sterling and US dollars. The deal, which involves the transfer of some 45.6 percent of Ford Motor of England to its American parent, has received the necessary monetary exchange control consent from the British government.

What's more, the US Treasury, which is not at all happy about the impact of this transaction on the balance-of-payments deficit, has promised that it will not interfere.

UK Auto Industry Will Be US-Dominated

The ticklish part of the dramatic Ford bid is that its acceptance by British stockholders will give American interests absolute ownership of more than 50 percent of the United Kingdom's auto industry, regarded by many as the key industry in the economy.

General Motors Corporation owns Vauxhall Motors, Ltd., the third largest English auto producer. British Motor Corporation is the largest, with Ford second.

Martin Lindsay, a Conservative member of Parliament, expressed the viewpoint of a growing number of business and financial leaders in Britain and on the continent when he told that legislative body that "for a nation to control the majority of its important industries is basic to the principle of sovereignty."

He said the government should regard the Ford stock bid "as a warning and take steps to prevent a major part of any other vital industry from becoming foreign controlled."

It is significant that Chancellor of the Exchequer Selwyn Lloyd declared that the British government's decision was made on "the facts in this case only." He went on to say that, under other circumstances, "the balance might point the other way."

"There may well be cases where proposals may seem attractive from a com-

—*Continued on page 57*

Brown, Kroeger Elected Vice-Presidents of SOCMA

Chester M. Brown, president of Allied Chemical Corporation, and Arthur P. Kroeger, assistant general manager of Monsanto Chemical Company's organic chemicals division, last week were elected first and second vice-presidents, respectively, by the Synthetic Organic Chemical Manufacturers Association.

Dr. Robert L. Bateman, manager of marketing services for Union Carbide Chemicals Company, was elected treasurer of the association.

Louis F. Loutrel, jr., vice-president of Maumee Chemical Company, and Carl S. Oldbach, assistant general manager of the organic chemicals department of E. I.

—*Continued on page 61*

SOCMA'S NEW PRESIDENT: Dr. Carl A. Gerstacker, chairman of Dow Chemical Company, who was elected last week president of the Synthetic Organic Chemical Manufacturers Association.

Russia's Big Need: Those Little Reagents

The Soviet Union might have enough crude power to orbit five-ton menageries, but its laboratories are having trouble getting miniscule amounts of reagent chemicals.

This is the report in Business & Defense Services Administration's periodical, *Current Review of the Soviet Technical Press*. Needs, the review indicates, include highly-purified reagents, extracting and complexing agents and new organic reagents.

To make matters worse, industrial

—*Continued on page 52*

Sun Chemical Acquires Wire Coatings Producer

Carbo Chemical Company, Pawtucket, R.I., manufacturers of electrical wire coatings, has just been acquired by Sun Chemical Corporation and will be integrated into that company's recently-formed chemical coatings division.

The Rhode Island concern will continue to produce its full line of insulating coating materials and saturants.

Association Meetings

American Association for the Advancement of Science, annual meeting, Philadelphia, December 26-31.

American Chemical Society, national meeting, St. Louis, Mo., March 21-30.

American Institute of Chemical Engineeds, annual meeting and petrochemical exposition, Municipal Auditorium, New Orleans, La., February 25-March 1.

American Medical Association, committee on cosmetics, Chicago, December 29.

American Society for Testing Materials, committee week, Netherland Hilton hotel, Cincinnati, Ohio, January 30-February 3.

Association of American Soap & Glycerine Producers, annual meeting, Waldorf-Astoria hotel, New York, January 25-27.

Atomic Industrial Forum, annual conference, Fairmont hotel, San Francisco, December 14-16.

Chemical Buyers Group of the National Association of Purchasing Agents, midwinter conference, Commodore hotel, New York, February 2.

Commercial Chemical Development Association, annual meeting, Roosevelt hotel, New York, March 28-29; annual outing, Bedford Springs hotel, Bedford Springs, Pa., May 24-25.

Drug, Chemical & Allied Trades Association, annual banquet, Waldorf-Astoria hotel, New York, March 2.

Electrochemical Society, Claypool hotel, Indianapolis, Ind., April 30-May 4.

Flavoring Extract Manufacturers Association, annual meeting, Savoy-Hilton hotel, New York, May 14-17.

National Drug Trade Conference, annual meeting, Gramercy Park hotel, New York, December 16.

National Pharmaceutical Council, annual luncheon, Pierre hotel, New York, December 15.

Northeastern Weed Control Conference, annual meeting, New Yorker hotel, New York, January 4-6.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 12-14.

Pharmaceutical Manufacturers Association, central regional meeting, Edgewater Beach hotel, Chicago, February 13-15; western regional meeting, Ambassador hotel, Los Angeles, Greenbrier hotel, White Sulphur Springs, W. Va., April 30-May 3.

Plastics Exposition, sponsored by the Society of the Plastics Industry, Coliseum, New York, June 5-9.

Society of Plastics Engineers, annual technical conference, Shoreham and Park-Sheraton hotels, Washington, D. C., January 24-27.

Society of the Plastics Industry, reinforced plastics conference, Edgewater Beach hotel, Chicago, February 7-9; western section conference, del Coronado hotel, Coronado, Calif., April 20-21; national conference, Commodore hotel, New York, June 5-9.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, January 10.

Technical Association of the Pulp & Paper Industry, annual meeting, Commodore hotel, New York, February 20-23.

Toilet Goods Association, annual convention, Waldorf-Astoria hotel, New York, May 9-11.

Water Pollution National Conference, sponsored by the Department of Health, Education & Welfare, Sheraton-Park hotel, Washington, D. C., December 12-14.

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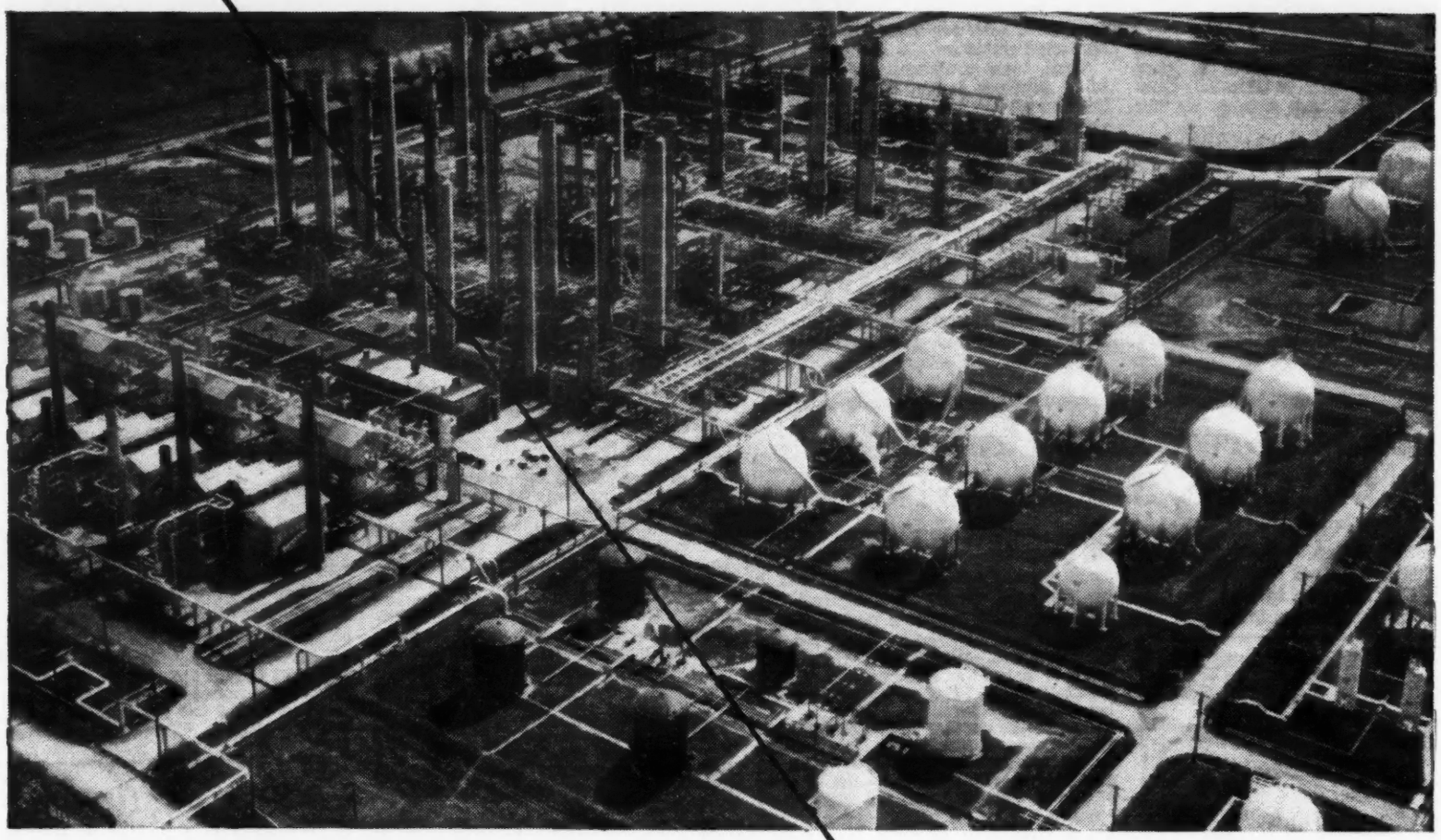

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WASHINGTON EDITOR: Ralph L. Cherry, 956 National Press Building, Washington 4, D.C.
EUROPEAN EDITOR: Clare M. Cotton, 26A Wellington Road, London NW 8, England
SCHNELL PUBLISHING COMPANY, INC., 30 Church Street, New York 7, N. Y.
(RE 2-9820) Cable Address: Reporter, New York
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Volume 178 December 12, 1960 No. 25

A LOOK AT THE FIGURES

Chemicals Production: How It's Going

		September 1960	September 1959
Acetic Acid, Synthetic	lbs.	58,550,306	59,132,650
Acetone	lbs.	67,224,659	62,650,417
Ammonia, Anhydrous	tons	363,601	358,981
Benzene	gals.	35,392,386	19,409,051
Chlorine	tons	371,058	364,331
Formaldehyde (37% basis)	lbs.	142,755,075	155,724,454
Methanol, Synthetic	lbs.	175,976,035	150,002,651
Phthalic Anhydride	lbs.	29,168,883	27,091,096
Sodium Hydroxide (Caustic Soda 100% NaOH)	tons	388,915	397,465
Sulfuric Acid (100% H_2SO_4)	tons	1,350,253	1,336,729

Sources: Tariff Commission, Bureau of Census

Chemical Health Hazards

"The urban, industrial environment poses a challenge to health which differs sharply from the traditional problems of bacterial disease with which we have dealt so successfully in the past. The threat is basically chemical rather than biological. Through food, water, and air, we come in contact with minute amounts of thousands of chemicals, many of them toxic in higher concentrations. Their immediate effect on our health is not obvious, like an attack of typhoid fever, for example. It may not be detectable at all. But over a period of years, the slowly accumulating chemicals in our system may contribute to a variety of chronic illnesses."

Thus most pertinently speaks the US Surgeon General in his foreword to one of the booklets having to do with the National Conference on Water Pollution, to be held in Washington today through Wednesday (December 12 to 14), with the fundamental objective of promoting man's management of his environment.

The conference comes out of a proposal made last February by President Eisenhower as he voted an increase in federal aid for construction of sewage plants throughout the country and called water pollution a "uniquely local blight." That is exactly what it is, and it is on that basis that it must be combatted.

A national objective should be set up as a guide, made available by way of the functioning of the Public Health Service. The assuring of an adequate supply of clean water through preventive and remedial practices with regard to pollution must be achieved where it is needed—and the job is wholly that of the local citizenry with the emphatic stress and reliance upon its industrial segments.

Sewage disposal is a costly operation. Many communities cannot maintain it effectively—usually because of a lack of properly recognized responsibilities in public relations. For the most part, they do not like federal insistent intervention. They are not wholly in agreement with state programs—even with some promise of aid—which often derive from the conclusion that the septic tank has been outmoded.

There is much to be learned by all who should have the knowledge by way of reports of what is offered at this week's national conference. There is much to be done by way of local conferences and collaboration along the patterns coming out of Washington—and it should be driven home everywhere.

As was stated here October 24, the Manufacturing Chemists' Association and the National Association of Manufacturers are in the forefront among industrial organizations which will contribute helpfully to the learning of what should be known and the doing of what must be done. There are very good reasons to believe and to expect that their members will fully accept the responsibility of keeping the ball rolling.

NJ Drug Buying Revamped

December 2, the New Jersey Purchase and Property Director announced a new policy of buying drugs by chemical names, rather than by brand names—and saving the state more than $50,000 a year. The new policy comes out of a four-month study of buying practices. The director said it "will increase economy and efficiency without compromising any professional drug or service standards . . . Price differences have been eliminated; the state is paying more reasonable and stable prices: $29,916 will be saved on purchases of competitive items; on drugs made only by one manufacturer, $11,775 will be saved by combining the needs of all institutions."

It is to be assumed that the NJ director had been reading the news about Kefauver "discoveries" largely without the least substantiation — concerning the profits of drug manufacturers, and how the "small manufacturer sells drugs at fraction of cost for brand-name drugs: Americans pay $3 for a tranquilizer; Australians, 94 cents."

Yet, extensive clinical tests are reliably reported to have shown that "generic identity does not assure therapeutic equivalence."

Time alone will tell what he is going to run up against. The capabilities of his facilities to make him sure of what he gets will be a very necessary contributory factor. He will not find it easy to get useful informative assistance from the US Food & Drug Administration.

The pharmaceutical industry knows that drugs sold under chemical or other specific names can be and in most instances are all that they are represented to be in comparison with brand-name products. But, its stand is that the mere possibility that a drug may be defective presents a risk that the physician or pharmacist should not accept—and is not usually equipped to avoid. Certainly nothing comparable exists to the five hundred or more checks and double checks which the ordinary manufacturer makes from the time the shipment of a raw material reaches the plant until the label-checked marketing container goes into the packing case for shipment to the trade.

A buyer has the indisputable right to order what he wants by any name that will properly identify it to the seller. The prescriber of a drug has the same right—he cannot be expected to know that most chemical compounds used in medicines have three names—(1) the specific, (2) the generic, (3) the brand. The first two mean nothing whatsoever in his vocabulary. So, it is not at all strange that the American Academy of General Practitioners nas gone on record that "any action to discourage the use of trade names in prescription writing would interfere with the growth and advancement of pharmaceutical research and progress in medical treatment."

Fifty thousand dollars may be worth saving on New Jersey's yearly drug bill; but it does not measure up very far in terms of cost of pharmaceutical research or medical treatment. Here's hoping that the Jersey director does not run into any serious disappointment—for himself or for his "patients."

Washington Talks It Over

Who Is This Man Ribicoff? That Is the Big Question That Is Being Asked by Chemical People Across the Washington Luncheon Tables as a New Boss Approaches HEW.

By Ralph L. Cherry
Washington Editor

One of the most active pastimes of Washington observers in the drug and chemical industries these days is trading information on Gov. Abraham A. Ribicoff of Connecticut. He is to be the new Secretary of Health, Education & Welfare in the Kennedy administration.

So far there have been no complaints. Everything that has been heard about him has been good. He seems to be a well-grounded type of individual not given to barging into situations with which he is not familiar. He appears to be what might be regarded as a "moderate liberal."

So goes the gossip at the luncheon tables.

Nevertheless, as with any new appointment to a responsible position in government—and he ranks at the top as far as the drug and chemical industries are concerned—some changes in organization, or emphasis, or line of administration are to be expected.

Some of the unanswered questions go like this:

Will politics be allowed to creep into the Food & Drug Administration, having in mind the efforts to convert the office of Commissioner of Food & Drugs into a political plum by some of President Eisenhower's advisers early in his administration?

Will law enforcement through publicity be pursued as actively by Mr. Ribicoff as by Mr. Flemming?

Is this appointment to be simply a stepping stone into something more important for Mr. Ribicoff—such as appointment to the Supreme Court when the next vacancy occurs?

One thing that is expected of the Connecticut Governor in HEW is greater emphasis in administrative actions on matters important to consumers. This could carry with it some developments in the drug and chemical fields.

Mr. Ribicoff is said to be strongly consumer-minded. Just over a year ago, he reorganized all the agencies in Connecticut which had anything to do with consumer problems into a single unit, with the word "consumer" given prominence in its name. That could mean greater emphasis on consumer interests in the work of the FDA.

The nucleus for a definite program in this direction already exists within the FDA in its Bureau of Program Planning & Appraisal. Essentially a consumer consultant program that dates back to the days of Commissioner Charles W. Crawford, this has never been brought into any prominence in the FDA's work.

Few people knew that the program even existed, although each of the seventeen field offices of FDA has a consultant assigned to it on a part-time basis.

It is the job of these consultants to meet with consumer groups and endeavor to explain the meaning behind various administrative actions of the agency, and also sound out public sentiment on need for new controls.

What with the cranberry scare and the downgrading of the achievements of the chemical industry in providing the nation with the best food supplies in the world, consumer interest has undergone a resurgence not seen since the early '30's.

FDA hopes to ride the crest of this surge of consumer interest to get through more legislation in the next congress. On tap are its proposals for expanding bureaucratic controls over the drug makers to make them more responsive to directions from Washington; to apply the heavy hand of control over manufacture of cosmetics, and to put the government's stamp of approval on the efficacy or "usefulness" of new medicines.

In another area of the chemical industry—pesticides—there is hope being expressed that Mr. Ribicoff will turn the tide of influence that appears to be gaining ground within the Public Health Service that the pesticide industry is responsible for some of the problems now being encountered in the health field.

Producers see in the statements some echoes of charges that have been leveled against the industry in the past by various conservation groups. It is the producers' feeling that PHS officials should tend to their own knitting and stay out of the squabbles between agriculture, the insecticide industry and the conservationists.

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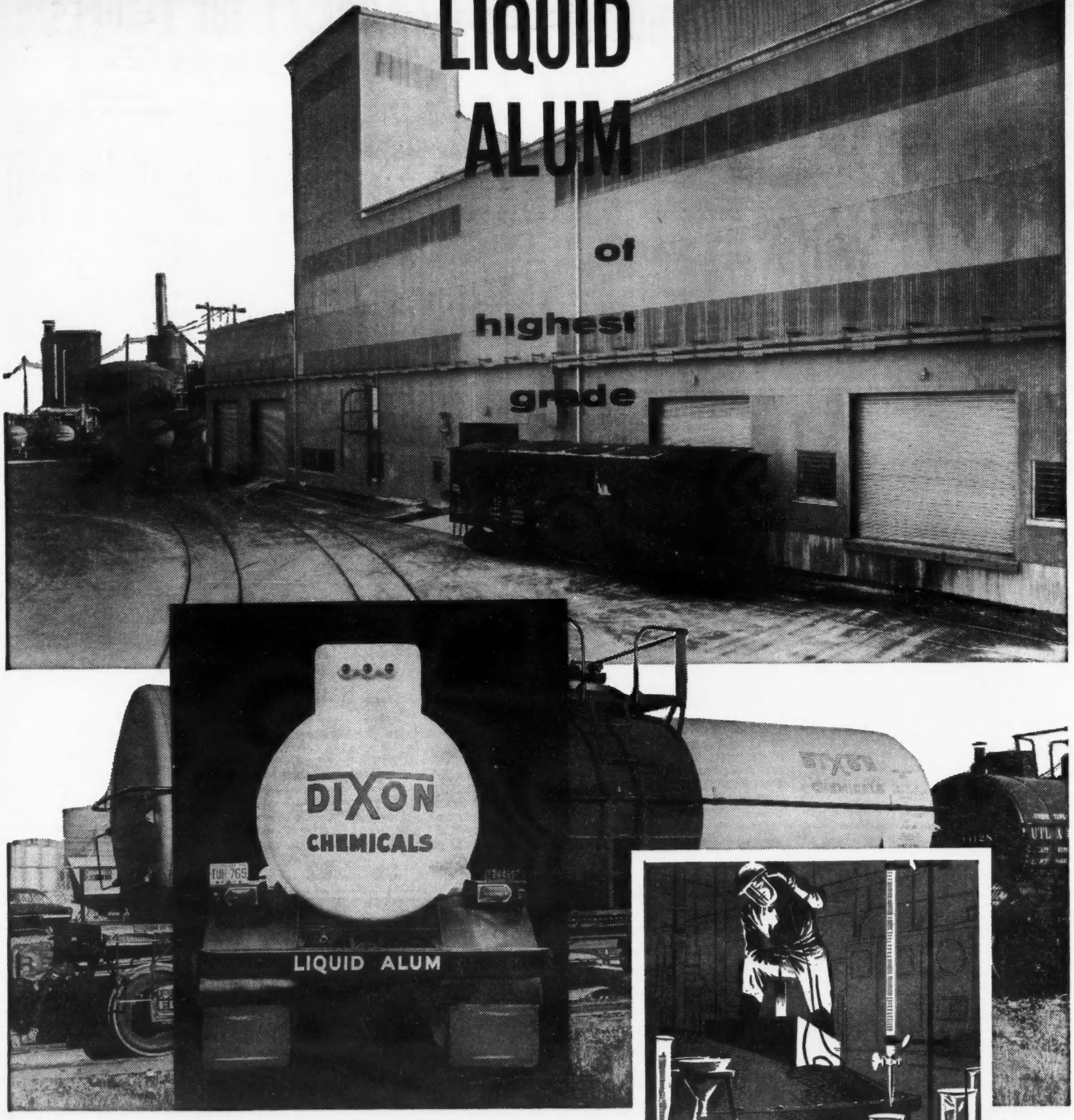

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Acetaldol (see Aldol)
Acetanilide, tech. flaked, bbls., bgs., c.l., frt alld lb. .32½- —
bbls., bgs. ton lots, frt alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP bbls. 225-lb dms. any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs 4.80 - —
56%, bbls. ..... 100 lbs 8.25 - —
70%, bbls. ..... 100 lbs 9.95 - —
80%, bbls. ..... 100 lbs.10.45 - —
Acetic acid glacial, syn., CP dms. dlvd. 100 lbs.15.00 -20.25
tech., dms., c.l., dlvd ... 100 lbs.13.75 —
dms., l.c.l., dlvd ..... 100 lbs.15.25 - —
tanks, dlvd. ..... 100 lbs.10.00 —
USP, dms., dlvd ..... 100 lbs.13.00 -18.25
Acetic anhydride, aluminum ret. dms., c.l., dlvd E lb. .16½- —
aluminum ret dms., l.c.l., dlvd E. lb. .18 - —
tanks, dlvd. E ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib dms., l.c.l., dlvd ..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib dms., l.c.l., dlvd ..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l, dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb. .10½- —
dms., l.c.l., dlvd ..... lb. .12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., t.l., dlvd lb. .35 - —
dms., l.c.l. dlvd ..... lb. .36½- .37
tanks, dlvd ..... lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns. dms ..... lb. .42 1.30
Tech., dms., c.l., works ..... lb. .47 - —
dms., l.c.l., works ..... lb. .47¾ - —
tanks, works ..... lb. .45 - —
N-Acetyl-p-aminophenol, dms., t.l. (min 23,000 lbs.), frt. adjusted lb. 1.24 - —
dms., 5,000-lb. lots, same basis lb. 1.30 1.45
dms., smaller lots, same basis lb. 1.35 1.63
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 - —
cs., l.c.l., ex whse ..... lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP, 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼- —
(Pink and green granulations 5c. per lb. higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver. lb. .33 - —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS
Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 .55
Acrolein, tech., dms., c.l., works lb. .36 - —
dms., l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l. dlvd lb. .42½- —
dms., l.c.l., l.t.l., dlvd ..... lb. .43½- —
tanks, dlvd. ..... lb. .40 - —
tech., esterification, tanks, frt. t.l. lb. .38 - —
tech., polymerization, tanks, same basis lb. .38 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., l.t.l., frt. alld ..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd. ..... lb. .32¼- —
bgs., l.c.l., dlvd. ..... lb. .35 - —
Agar, USP Kobe No. 1, strip, bls. lb. 2.75 - 3.00
powd., 30 mesh., fib. dms lb. 2.40 - —
dl-Alanine, dms., 100-lbs or more, f.o.b. works lb. 5.25 - —
dms. 1-99 lbs., same basis lb.10.00 - —
Aldol, 95%, dms., t.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., t.c.l., dlvd lb. 1.04 - —

ALCOHOLS
Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs ..... lb 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E of Rockies lb 2.38 - —
Alkali blue, toner, litho flushed, 125-lb bbls., same basis, lb. 1.35 - —
Alkali blue prices 1c. higher W of Rockies
Allethrin, 90%, dms., frt. alld lb.28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt alld lb. 6.50 6.55
2½% dms frt alld. lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd. ..... lb. .32½- —
dms., t.c.l., dlvd. ..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb cbys 5,005 lbs or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,... lbs works lb. 1.55 - —
55-lb. cbys., 55 to 990 lbs works lb. 1.60 - —
Allyl chloride, dms., c.l., dlvd lb. 17½- —
dms., t.c.l., dlvd ..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil nat., bitter, f.p.a., bots. lb. 2.75 3.45
NF, bots. ..... lb. 3.00 3.30
sweet, USP, cns., dms ..... lb. .70 1.30
Aloe, Cape, ex. ..... lb. 25 - .40
powd., ex. ..... lb. 60 .80
Curacao, kgs. ..... lb. .75 - —
powd., kgs. ..... lb. .85 - —
Aloin, USP bbls., dms., kgs lb 1.25 1.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium gran., bgs., works 100 lbs 4.30 - —
Lump, dms., works .... 100 lbs 5.05 - —
Powd. dms., works .... 100 lbs 5.20 - —
USP, burnt., dms ..... lb. .20 .21
hydrous, dms ..... lb. .07¾ .08
Alum potassium gran., bgs., works. 100 lbs 4.55 - —
Lump, dms., works .... 100 lbs 5.30 - —
Powd., dms., works .... 100 lbs 5.45 - —
USP, burnt., dms ..... lb. .20 .21
USP, hydrous dms ..... lb. .07¾ .08
Alum, potash-chrome, dms .... lb. .17 - —
Alumina, calcined bgs., c.l., works lb. .0535- —
bgs., l.c.l., works ..... lb. .056 .0838
Aluminum acetate, basic soln., 24%, bbls. l.c.l. works lb. .14 - —
Aluminum chloride coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l. works lb. 16½- —
eryst., dms. c.l. works 100 lbs.21.00 - —
dms., l.c.l. works 100 lbs.21.50 - —
Soln., 32° cbys., c.l., works lb. .0495- —
cbys., l.c.l., works lb. .0570- .1098
tanks, works 100 lbs. 3.95 - —
NF, gran., dms. works lb. .31 .33
Aluminum fluoride tech., anhyd., bgs., c.l., works lb. .16¼ —
bgs., l.c.l. works .... lb. .17¼ .19¼
bulk, c.l. basis 80% ..... lb. .14½ —
Aluminum fluoride in fib. dms. 0.35c per lb higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, l.c.l., works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb lots same basis lb. .0395- —
bgs., 2,000-20,000 lb lots same basis lb. .0495- —
bulk, c.l., same basis ..... lb. .0330- —
Aluminum hydroxide, dried, USP XV fib dms., works lb. .82½ —
fib dms., contract, works lb. 79½ —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 —
9-9½% Al_2O_3, fib dms., works. lb. .19 - —
fib. dms. contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb lots, frt. alld lb. .2810- —
50-lb. pigs, 10,000-lb lots, frt alld. lb. .26 —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste lining, extra-fine, dms lb. .71 - —
Standard grade, dms lb. 48½- —
Aluminum powder, lining, extra-fine, dms lb 1.13 —
Standard grade, dms lb 83 —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb dm., 1½c. per lb. for 50-lb dm., 3c. per lb. for 10 lb. can and 5c to 12c. per lb. for smaller containers. Deduct 1c per lb. for single shipment of 400 to 1,499 lbs. 2c for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs and 4c for 30,000 lbs. or more. Where destination is within the continental U. S. a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or more
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic, ctns. c.l lb. .39 - —
ctns., l.c.l. ..... lb. .40 .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 .44
Tribasic ctns., c.l. ..... lb. .39 - —
ctns., l.c.l ..... lb. .40 .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis ton.40.00 - —
lump, bgs., c.l., same basis ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
P-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.57 —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 1.90
Aminoazotoluene base, bbls., 100% basis lb. 1.15 1.18
p-Aminobenzoic acid, tech., dms., works lb. 1.72 —
3-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 2.15 3.85
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 —
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
dms., l.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., l.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald, E. of Rockies ton.92.00 - —
refrigeration, tanks, works, frt. equald, E. of Rockies ton.94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies ton.95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l. works, frt. equald 100 lbs. 8.25 —
bgs., l.c.l., same basis 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works. lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton.325 - —
dms., ton lots, ex whse. 100 lbs.20.40 - —
dms., smaller lots, ex whse. 100 lbs 21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works 100 lbs. 7.00 - —
dms., l.c.l., works 100 lbs. 9.00 - —

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
a.p.a.	available phosphoric acid	e.p.	end point	Pac.	Pacific
approx.	approximately	equald.	equalized	pf.	proof
artif.	artificial	exp.	expressed	phos.	phosphate
ASTM	American Society for Testing Materials	Ext.	external	photo.	photographic
		F.	fahrenheit	pkgs.	packages
Atl.	Atlantic	ferment.	fermentation	powd.	powdered
Be.	Baume	f.f.a.	free fatty acid	precip.	precipitated
bbls.	barrels	f.f.c.	free from chlorine	prod.	producer
bgs.	bags	fib.	fiber	pt.	point
bls.	bales	f.o.b.	free on board	pulv.	pulverized
bots.	bottles	f.p.a.	free of prussic acid	purif.	purified
b.p.	boiling point	frt.	freight	redist.	redistilled
b.p.l.	bone phosphate of lime	gal.	gallon	refd.	refined
b.r.	boiling range	gran.	granular	refy.	refinery
bxs.	boxes	grd.	ground	reg.	regular.
C.	centigrade	i.&a.	iron and aluminum	resub.	resublimed
cbys.	carboys			ret.	returnable
CD	completely denatured	i.b.p.	initial boiling point	SD	specially denatured
c.i.f.	cost, insurance, freight	imp.	imported	s.d.	single distilled
		incl.	included	S E.	southeast
cks.	casks	indust.	industrial	sec.	secondary
c.l.	carlots	kgs.	kegs	secs.	seconds
cns.	cans	l-	laevo	s.g.	specific gravity
coml.	commercial	lacq.	lacquer	shipt.	shipment
conc.	concentrated	lb.	pound	soln.	solution
CP	chemically pure	l.c.l.	less carlots	s.u.	standard unit
cps.	centipoises	l.t.l.	less truckload	syn.	synthetic
cryst.	crystalline	liq.	liquid	tanks.	railroad tankcars
cs	cases	mfrs.	manufacturers	tech.	technical
ctns.	cartons	m-	meta	tert-	tertiary
cyls.	cylinders	m.a.p.	mixed aniline point	t.l.	truckloads
d-	dextro	min.	minimum	t.w.	tankwagons
dbl.	double	m.p.	melting point	USP	U. S. Pharmacopoeia
denat.	denatured	N-	nitrogen	vis.	viscosity
dest-dist.	destructively—distilled	n-	normal	VM&P	varnish makers & painters
		nat.	natural	W.	west
dl-	dextro-laevo	neut	neutral	whse.	warehouse
dist.	distilled	NF	National Formulary	w.w.	water-white
		NNR	New and Nonofficial Remedies		

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Ammonium Bichromate—Atropine

Ammonium bichromate, dms., works	lb	.42	.43
Ammonium bifluoride, dms., dlvd	lb	.2145	.2245
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald	lb	.44	—
dms., l.c.l., same basis	lb	.46	—
Ammonium carbonate, USP, lump, dms., c.l.	lb	.15½	—
Ammonium chloride, white, tech., fine gran., bgs., c.l., works	100 lbs	6.00	—
bgs., l.c.l., works	100 lbs	8.00	8.45
USP, gran., 250-lb. dm.	lb	.17¼	—
Ammonium citrate, dibasic, 250-lb. dm., f.o.b. works	lb	.77	—
Ammonium dichromate (see Ammonium bichromate)			
Ammonium fluoride (see Ammonium bifluoride)			
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works, E	lb.	.45	—
Ammonium hydroxide (see Ammonia, aqueous)			
Ammonium iodide, NF, 25-lb. jar, f.o.b. works	lb	4.26	—
Ammonium lauryl sulfate, dms., c.l., frt. alld	lb.	.20½	—
dms., l.c.l., frt. alld	lb	.21½	—
tanks, frt. alld	lb.	.19½	—
Ammonium lignin sulfonate, bgs., c.l., works	100 lbs	3.25	—
bgs., l.c.l., works	100 lbs.	3.40	3.65
Ammonium linoleate, 80%, dms., works	lb.	.50	.55
Ammonium molybdate, CP, cryst., 400-lb. dms., 15,000-lbs. works,	lb	1.22	—
400-lb. dms., 2,000-lb. contracts, works	lb	1.23	—
400-lb. dms., works	lb	1.24	—
Ammonium nitrate, dom., tertilizer grade 33.5% N, bgs., f.o.b. works	ton	67.00	—
Ammonium nitrate, dom., with dolomite, 20.5% N, bgs., c.l., Hopewell, Va.	ton	48.00	—
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price	ton	54.00	—
Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b. works, E	lb.	28½	—
Tech., powd., 200-lb. dm., same basis	lb	28½	—
Ammonium pentaborate, gran., bgs., c.l., works	ton	193.00	—
bgs., ton lots, ex whse	100 lbs	14.23	—
bgs., smaller lots, ex whse	100 lbs.	15.48	-17.48
Ammonium pentaborate powder $10 per ton higher in bags			
Ammonium persulfate, tech., dms., 10-ton lots or more, works	lb.	.18	—
dms., smaller lots, works	lb.	.20	.23
Ammonium phosphate, coml., bgs., c.l., works, frt. equald	lb.	.09¼	—
bgs., l.c.l., same basis	lb.	.10	—
Dibasic, NF, V, bbls., dms	lb.	.46	—
Dibasic, tech., bgs., c.l., works, frt. alld	lb.	.09¼	—
Ammonium silicofluoride, dms., works	lb.	.12¼	.13¼
Ammonium sulfamate, bgs., c.l., t.l., works	lb.	.19	—
bgs., l.c.l., works	lb.	.20½	.37
Ammonium sulfate, standard, granular, bulk, f.o.b. works, base price	ton	32.00	—
Ammonium sulfate, standard, gran., purif., c.l., 100-lb. bgs., f.o.b. works	lb.	.08½	—
Large granular, bulk, c.l., works	ton	35.00	—
bgs., c.l., works	ton	40.00	—
Tech., bulk, c.l., t.l., works	ton	52.00	—
bgs., c.l., t.l., works	ton	56.00	—
bgs., l.c.l., t.l., works, 100 lbs		3.20	5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis	ton.	160.00	—
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate)			
Ammonium thiocyanate, tech., cryst., dms., c.l., works	lb	.20	—
dms., l.c.l., works	lb.	.22	.26
Tech., soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content	lb.	.17¼	—
Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis	lb	1.15	—
d-Amphetamine hydrochloride, monobasic, dms.	lb.	17.50	23.50
dl-Amphetamine hydrochloride, dibasic, dms.	lb	4.50	6.00
d-Amphetamine phosphate, fib. dms., 100-lb. lots	lb.	15.00	—
dl-Amphetamine phosphate, dms.	lb.	4.20	5.60
d-Amphetamine sulfate, fib. dms.	lb.	15.00	-17.00
dl-Amphetamine sulfate, fib. dms.,	lb	4.20	5.60

Two Cyanamid aniline plants, located at Willow Island, West Virginia, and Bound Brook, New Jersey, assure you of convenient uninterrupted aniline service. The new fluid-bed catalytic process has been producing aniline of consistently high purity for over two years in accordance with the following specifications:

Distillation Range	
Over-all	1.0°C. Max.
95% (2.5-97.5 ml.)	0.5°C. Max.
Nitrobenzene	2 p.p.m. Max.
Freezing Point (dry)	–6.20°C. Min.
Color	
% Transmission	95% Min.
APHA Scale	100 Max.

Cyanamid's specifications for aniline provide unsurpassed standards in purity, color and quality from the nation's leading aniline supplier. The product is available in drums and tank cars. For more information, call your nearest Cyanamid Intermediates office.

CYANAMID

AMERICAN CYANAMID COMPANY
Intermediates Department
Bound Brook, New Jersey

Sales Offices: Cleveland, Ohio; Boston, Mass.; Philadelphia, Penna.; Chicago, Ill.; Los Angeles, Calif.

Amyl acetate, ex fusel oil, tech., dist. from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies	lb.	.18¼	.19
dms., l.c.l., same basis	lb.	.20	.20¼
tanks, same basis	lb.	.16	.16¼
Amyl acetate, ex pentane, reg., dms., c.l., dlvd	lb.	.19	—
dms., l.c.l., dlvd.	lb.	.21½	—
tanks, dlvd.	lb.	.16½	—
tech., dms., c.l. dlvd.	lb.	.17	—
dms., l.c.l., dlvd.	lb.	.18½	—
tanks, dlvd.	lb.	.14½	—
Amyl acetate, syn., oxo process, dms., c.l., dlvd	lb.	.19	—
dms., c.l., dlvd.	lb.	.20½	—
tanks, dlvd	lb.	.16½	—
Amyl alcohol, ex fusel oil (see Fusel oil, refd).			
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd	lb.	.43½	—
refd., ACS grade, dms., l.c.l., dlvd	lb.	45½	—
ex pentane, mixed amyls, dms., c.l., frt. alld	lb.	.19	—
dms., l.c.l., frt. alld	lb.	.20½	—
tanks, frt. alld.	lb.	.16½	—
Amyl alcohol, primary, dms., c.l., frt. alld	lb.	.20¼	—
dms., l.c.l., frt. alld	lb.	.21¾	—
tanks, frt. alld	lb.	.17¾	—
Sec-synthetic, dms., c.l., works, frt. alld	lb.	.19	—
dms., l.c.l., same basis	lb.	.20½	—
tanks, same basis	lb.	.17	—
Tert-synthetic, dms., c.l., frt. alld. E	lb.	.17	—
dms., l.c.l., frt. alld. E.	lb.	.18½	—
tanks, frt. alld. E.	lb.	.14½	—
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works	lb.	.41½	—
dms., l.c.l., works	lb.	.43	—
tanks, works	lb.	.39½	—
2-pentanol, dms., c.l., works	lb.	.65	—
dms., l.c.l., works	lb.	.70	—
tanks, works	lb.	.60	—
Amyl n-butyrate, dms.	lb.	1.00	1.25
Amyl cinnamic aldehyde, dms.	lb.	1.70	2.20
p-tert Amyl phenol, dms., c.l., works	lb.	.26¾	—
dms., l.c.l., works	lb.	.27¾	—
Amyl salicylate, cns., dms.	lb.	.71	—
Amyris oil, dms.	lb.	1.50	—
Anethol, tech., dms.	lb.	.80	.92
USP, cns., dms.	lb.	1.05	—
Angelica root, bls.	lb.	.9	1.00
Angelica root oil, bots.	lb.	120.00	140.00
Angelica seed oil, bots.	lb.	120.00	130.00
Aniline, dms., c.l., frt. alld.	lb.	.20	—
dms., l.c.l., frt. alld.	lb.	.21	—
tanks, frt. alld.	lb.	.18	—
Aniline oil (see Aniline).			
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld	lb.	.33	—
dms., l.c.l., same basis	lb.	.35	—
Anise oil, USP, dms.	lb	1.75	3.00
Anise seed, Mexican, bgs.	lb.	.24	—
Spanish, bgs.	lb.	.24	—
Anisic aldehyde, dms.	lb	1.50	2.20
o-Anisidine, dms., c.l., frt. alld.	lb.	.80	—
dms., l.c.l., same basis	lb.	.82	—
tanks, same basis	lb.	.78	—
p-Anisidine, dms., works	lb.	.97	—
Anthracene, 90-95%, dms., c.l., t.l., f.o.b., works	lb.	.42½	—
dms., l.c.l., minimum shipment 1,000 lbs., same basis	lb.	.45	—
Anthranilic acid, 99%, 150-lb. dms., dlvd	lb.	1.15	—
Anthraquinone, 99.5%, bgs., c.l., frt. alld	lb.	.70	—
bbls., l.c.l., same basis	lb.	.73	—
Electrical grade, bgs., l.c.l., same basis	lb	1.10	—
Antimony butter (see Antimony trichloride).			
Antimony metal, bulk, c.l., mines	lb.	.29	—
cs., c.l., mines	lb.	.29½	—
Antimony oxide, bgs., c.l., frt. alld.	lb.	.26½	—
bgs., l.c.l., frt. alld.	lb.	.28	—
Prices of antimony oxide are 2% higher west of the Rockies.			
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd	lb.	.21	—
bgs., smaller lots, dlvd	lb.	.24	.26
Antimony trichloride, anhyd., solid, pails, c.l., works	lb.	.41	—
pails, l.c.l., works	lb.	.43	—
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E	lb.	.69½	—
USP, powd., 250-lb. dm., same basis	lb.	.74½	—
Apomorphine hydrochloride, USP, bots., 25-oz. lots	oz.	35.60	—
Apricot kernel oil, USP, dms.	lb.	.55	.70
Arabic gum, amber sorts, 10 bgs.	lb.	.21	.23
USP, powd., bbls.	lb.	.27	.30
Areca nuts, powd., bbls.	lb.	.13	—
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more	oz.	4.00	—
l-Arginine, free base, dms., 10-kilo lots or more	kilo.	90.00	—
l-Arginine glutamate, dms., 10-kilo lots or more	kilo.	60.00	—
l-Arginine monohydrochloride, dms., 10-kilo lots or more	kilo.	60.00	—
Arnica flowers (true Montana), bls.	lb.	75	—
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).			
Arsenic, crude (95%), bulk, c.l., works	lb.	.016	—
bbls., c.l., works	lb.	.0.31	—
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works	lb.	.48	—
Arsenic, white, powd., bbls., c.l., works	lb.	.04½	—
bbls., l.c.l., works	lb.	.06½	.07¼
Arsenous acid, tech. (see Arsenic, white).			
Arsenous acid, USP (see Arsenic trioxide).			
Arylid maroons, deep shades, bbls.	lb.	3.70	—
Light shades, bbls.	lb.	2.85	—
Asafetida gum, cns.	lb.	.36	.40
Powd., bbls., dms.	lb.	.75	.80
Asbestine (see Talc, fibrous, New York).			
Asbestos, Canadian, crude 6D, c.l. (30 tons), mines	ton.	86.00	—
7D, c.l. (30 tons), mines	ton.	75.00	—
7F, c.l. (30 tons), mines	ton.	71.00	—
7H, c.l. (30 tons), mines	ton.	61.00	—
7K, c.l. (30 tons), mines	ton.	50.00	—
7M, c.l. (30 tons), mines	ton.	44.00	—
7R, c.l. (30 tons), mines	ton.	43.00	—
7RF, c.l. (30 tons), mines	ton.	44.00	—
7T, c.l. (30 tons), mines	ton.	41.00	—
7TF, c.l. (30 tons), mines	ton.	44.00	—
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.			
Ascorbic acid, USP, dms., 100-kilos	kilo.	6.80	—
dms., less than 100-kilos	kilo.	7.05	—
Ash, black (see Barium sulfide).			
Asphalt, gilsonite, black jet, bgs., c.l., mines	ton.	43.00	—
ex-whse., 5 tons or more, N. Y., N. J.	ton.	89.50	—
select, brilliant black, 340°-360°F. fusing pt., bgs., c.l., mines	ton.	46.00	—
270°-295°F. fusing pt., bgs., c.l., mines	ton.	43.00	—
Asphalt, petroleum, cut-back, tanks, tankwagon, refy	gal.	.09½	—
emulsion, tanks, tankwagon, refy.	gal.	.09½	—
steam-refd., 50-80 penetration, tanks, tankwagon, refy.	ton.	21.00	—
85-300 penetration, tanks, tankwagon, refy.	ton.	20.00	—

Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ..... oz. 5.75 - 7.50
Atropine sulfate USP, bots ..... oz 5.25 - 5.75
Azelaic acid, bgs., c.l., dlvd. ....lb. .40 - —
bgs., ton lots, same basis.....lb. .41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .65 - —
less than 1,000,000,000 units. 50,000 units. .70 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs lb. 1.00 - 1.10
Barbital, NF, 100-lb dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb .32 - .41
Barium chloride anhyd., bgs., c.l., works ton.176.00 - —
bgs., t.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works.lb .23 - —
Tech., cryst., bgs. c.l., works. 100 lbs 7.00 - —
bgs., t.c.l. works 100 lbs 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., t.c.l., t.l., frt equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 - —
bgs., t.c.l., frt. equald 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd lb. .16 - —
bbls., t.c.l., t.t.l., dlvd. lb. .17 - —
Barium oxide, grd. dms., c.l. t.l., frt equald ton275.00 - —
dms. t.c.l., t.t.l. frt equald ton.285.00 - —
Barium peroxide, dms. frt. equald. lb .20 - —
Barium stearate, ctns. c.l., frt. alld. lb .41 - —
ctns. t.c.l. same basis lb. .42 - .46
Barium sulfate, tech (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb dm. lb. .19 - —
Barium sulfide, dms., c.l. works. ton.100.00 - —
dms., t.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs. mines ton 30.00 - —
95-75%, bgs., mines ton.30.00 - —
white, water-grd., paper bgs. c.l. St. Louis ton.60.00 - 60.25
paper bgs., ex whse New York ton 84.85 —
Battery acid, cbys., c.l., works lb. 100 lbs 2.35 - —
cbys, t.c.l., works, E.... 100 lbs 2.65 - 10.95
Bauxite, bulk, mines ..... ton 7.00 - 10.00
Bay oil, NF, Puerto Rican, 50-55% ens lb. 2.40 - 2.70
55-60%, ens. ..... lb. 2.55 - —
NF, West Indian, 50-53%, ens. dms lb. 2.50 - —
Bayberry wax, bgs ..... lb. .65 - .70
Beeswax, crude, African, bgs.... lb. .54 - .55
Brazilian, bgs. ..... lb. .58 - .59
Central American, bgs..... lb. .54 - .55
Chilean, bgs. ..... lb. .59 Nom.
Refd., USP, bleached white, bricks, 100-lb. ctns lb. .67 - .69
white, slabs, 100-lb. ctns.. lb. .66 - .68
yellow, bricks, 100-lb ctns lb .59 - .61
yellow, slabs, 100-lb. ctns lb .58 - .60
Belladonna leaf, bls. ..... lb. .24 - .26
Belladonna root, bls. ..... lb. .28 - .35
Bentonite, dom 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots, ex whse ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. ..... lb. .80 - 1.05
Tech., dms., c.l., t.l..... lb. .47 - —
dms., t.c.l. lb. .48 - —
Benzene, pure or nitration, tanks, works:
Baton Rouge, La..... gal. .34 - —
Bethlehem, Pa ..... gal. .34 - —
Birmingham district ..gal. .34 - —
Chicago district ..... gal. .34 - —
Cleveland district .... gal. .34 - —
Geneva, Utah ..... gal. .34 - —
Houston, Tex. ..... gal. .34 - .40
Johnstown, Pa ..... gal. .34 - —
Benzene, pure or nitration, tanks, works:
Lorain, Ohio ..... gal. .34 - —
Middletown, Ohio ..... gal. .34 - —
Mennequa, Colo. .... gal. .34 - —
Philadelphia district... gal. .34 - —
Pittsburgh district gal. .34 - —
Port Arthur, Tex. .... gal. .34 - —
Benzene, pure or nitration, tanks, works:
St. Louis, Mo. District.gal. .34 - —
Sparrows Point, Md. gal .34 - —
Syracuse, N. Y. ..... gal. .34 - —
Terre Haute, Ind..... gal. .34 - —
Youngstown, Ohio .... gal. .34 - —
Lackawanna, N. Y. .. gal. .34 - —
Lone Star, Tex gal. .34 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., t.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb 2.20 - —
AAOT, bbls., dlvd. ..... lb. 2.55 - —
Lightfast, bbls., dlvd. ..... lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld. lb. .25 - .37
dms., t.t.l., same basis..... lb. .29 - .41
tanks, same basis ..... lb. .21 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 —

BENZOL
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. ..... lb. .32 - —
Benzophenone, dms ..... lb. 1.35 - 1.40
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 1.95 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald.lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., t.c.l., same basis lb .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., flb., dms., 50 to 1,000-lb lots, works lb. .98 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. .....lb. .54 - —
Tech., dms., dlvd. .....lb. .47½- .55
Benzyl benzoate, USP, 40-lb. dms.lb. .52 - —
Benzyl chloride, tech., cbys., dms., c.l., works, frt. equald lb. .22½- .25½
cbys., dms., t.c.l., same basis lb. .23½- .25½
tanktrucks, dlvd. Metropolitan area. lb. .21 - —
A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices are ½c. lower.
Benzyl cinnamate, cns. .....lb. 3.30 - 3.60
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.23 - —
12-49 dms., same basis.....lb. 1.35 - —
1-11 dms., same basis.....lb. 1.90 - —
Benzyl formate, cns.....lb. 1.70 - 1.85
Benzyl isoeugenol, cns.....lb. 8.20 - 8.30
Benzyl propionate, bots.....lb. 1.30 - 1.35
Benzyl salicylate, bots .....lb. 1.50 - 1.85
Benzylidine acetone, bots.....lb. 1.65 - 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns ..lb.56.50 - —
Berberine hydrochloride, bots....lb.56.50 - —
Bergamot oil, nat., NF, Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphtholamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine)
BHC (see Benzene hexachloride, tech.).
Biotin cryst. bots .....gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns.....lb. 1.50 - 1.90
Rectified, cns. .....lb. 1.75 - 2.00

Bismuth chloride, jars.....lb. 3.11 - —
Bismuth hydroxide, dms.....lb. 4.00 - 4.85
Bismuth metal, bxs., ton lots....lb. 1.25 - —
Bismuth nitrate, cryst., 250-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.43 - —
Bismuth subcarbonate, USP, 150-lb. dm lb. 3.70 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works..lb. 3.98 - —
Bismuth subiodide, fib dms lb. 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b. works lb. 3.15 - —
Bismuth subsalicylate, USP, 100-lb. dm, f.o.b. works..lb. 4.15 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .29½- —
bgs., c.l., t.l., less than 70,000 lbs., same basis lb. .30 - —
bgs., t.c.l., same basis..... lb. .31 - —
Blackberry root bark, ols.....lb. .50 .55

BLACK PIGMENTS
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

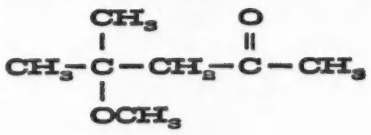
Blanc fixe, direct process, bgs., c.l., works ton.160.00 —
bgs., t.c.l., works ..... ton.170.00 —
bgs., t.c.l., New York whse ton.215.00 —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton 5.50 —
Bloodroot, bls. ..... lb. .85 .90

BLUE PIGMENTS
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms lb. 2.05 - —
Peruvian, dms. ..... lb. 1.65 —
BON acid maroons, pure, bbls lb 1.75 —
Resinated, bbls. lb 1.50 —
Bone black, dms., c.l., frt. alld lb. .1750- .2225
t.c.l., works ..... lb .1950- .2425
Pacific coast bone black prices 3¼c. per lb. higher.
Bonemeal, steamed works ton.80.00 - —
Bone phosphate, defluorinated or fume (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate tribasic)
Borax, tech., anhyd., 99½%, bgs., c.l., works ton 92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs .42 - —
bgs., smaller lots, same basis 100 lbs 8.67 - 10.01
bulk, c.l., works ..... ton.83.00 —

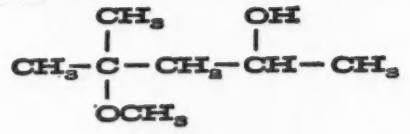
NEW HIGH BOILING SOLVENTS FROM SHELL

PENT-OXONE* SOLVENT



Keto-ether

PENT-OXOL* SOLVENT



Glycol-ether

for use in acrylic, vinyl, and nitrocellulose lacquers

PENT-OXONE is an excellent solvent for a wide variety of dissimilar resins. In *acrylics* it gives high performance at low cost. It promotes low viscosity, superior gloss, and excellent flowout. PENT-OXONE is a superior low-cost high boiler for solution-type *vinyls* because it makes possible high solids, desirable volatility characteristics, and high aromatic hydrocarbon tolerance. It has outstanding solvency for *nitrocellulose*. Because of its excellent blush resistance and dilution ratios comparable to low boilers, PENT-OXONE will be used in formulating metal and wood lacquers, and lacquer thinners.

PENT-OXOL's solvency and volatility help achieve a desirable balance between viscosity, flowout, gloss, and blush resistance. It promotes superior gloss and flow in *acrylic* formulations. In the *vinyl* coatings field, preliminary data indicating that PENT-OXOL peptizes vinyl chloride homopolymers suggest its use as an organosol dispersant. It gives outstanding blush resistance to *nitrocellulose* lacquers while eliminating the prolonged evaporation time commonly associated with blush-retarders. Its evaporation rate and solvency make PENT-OXOL particularly suitable for high-low type thinners.

PENT-OXONE	PHYSICAL PROPERTIES	PENT-OXOL
147.0-163.0°C.	ASTM BOILING RANGE	163.8-167.0°C.
141°F.	FLASH POINT	140°F.

PENT-OXONE and PENT-OXOL show promise as high boilers for epoxy coatings, thermosetting acrylic formulations, vinyl-acrylics, and other surface coating applications. They should find use as solvents in a wide range of uses not directly connected to the surface coating industry.

*Trademarks, Shell Chemical Company

SHELL CHEMICAL COMPANY
INDUSTRIAL CHEMICALS DIVISION

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SHELL

Borax—Calcium Carbonate

Borax, tech., gran., decahydrate, 99½% bgs. c.l., works	ton	50.00 - —
bgs. ton lots, ex whse, New York or Chicago	100 lbs	5.32 - —
bgs. smaller lots same basis	100 lbs	6.57 8.57
bulk c.l., works	ton	43.50 —
pentahydrate, 99½%, bgs., c.l., works	ton	64.50 - —
bgs. ton lots, ex whse, New York or Chicago	100 lbs	6.05 —
bgs. smaller lots same basis	100 lbs	7.30 9.30
bulk, c.l. works	ton	58.00 —
USP powd. bgs. c.l., works	ton	54.00 - —
bgs. ton lots, ex whse, New York or Chicago	100 lbs	6.45 —
bgs. smaller lots, same basis	100 lbs	7.70 9.70
Bordeaux powder tribasic bgs., c.l., dlvd	lb.	.24 —
bgs. l.c.l., same basis	lb	.26 —
Boric acid tech. anhyd 99.9% bgs., c.l., works	ton	335.00 - —
bgs. ton lots, ex whse, New York or Chicago	100 lbs	19.62 —
bgs. smaller lots, same basis	100 lbs	20.87 -22.87
cryst. 99.9% bgs. c.l. works	ton	163.50 —
bgs., ton lots, ex whse, New York or Chicago	100 lbs	11.05 —
bgs., smaller lots, same basis	100 lbs	12.30 -14.30
Boric acid, tech., cryst., 99.9%, dms., c.l., works	ton	188.50 - —
dms., ton lots, ex whse., New York or Chicago	100 lbs	12.30 - —
bgs., smaller lots, same basis	100 lbs	13.05 - —
Boric acid, gran., 99.9%, bgs., c.l., works	ton	112.00 - —
bgs., ton lots, ex whse, New York or Chicago	100 lbs	8.47 —
bgs., smaller lots, same basis,	ton	174.25 - —
dms. c.l. works	ton	137.00 - —
dms., ton lots, ex whse, New York or Chicago	100 lbs.	9.72 - —
dms., smaller lots, same basis	100 lbs.	10.47 - —
bulk, c.l., works	ton	106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago.	100 lbs.	8.85 - —
bgs., smaller lots, same basis	100 lbs.	10.10 -12.10
Boric acid, powd., dms., smaller lots, same basis	100 lbs.	11.45 - —
USP boric acid $25 per ton higher in bags.		
Borneol, cns.	lb.	2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works	lb.	1.25 - —
100-lb. cyls. works	lb.	1.70 - —
Boron trifluoride, gas, cyls., t.l., works	lb.	.70 - —
cyls., l.t.l., works	lb.	.70 - —
Brimstone (see Sulfur).		
Broenner's acid, bbls.	lb.	1.80 - —
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies	lb.	.32 - —
cs., l.c.l., same basis	lb.	.34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies	lb.	.31 - —
ret. dms., l.c.l., same basis	lb.	.31 - .34
tanks, same basis	lb.	.21½- —
Bromochloromethane, dms., c.l., frt. equald	lb.	.48 - —
dms., l.c.l., same basis	lb.	.50 - —
tanks, same basis	lb.	.47 - —
Bromoform pharmaceutical grade, 5-gal. cby., frt. equald	lb.	1.93 - —
Bromstyrol, bots.	lb.	5.25 - 5.35
Brucine, cns	oz.	Nominal.
Brucine sulfate, NF, cns.		1.45 1.75
Buchu leaves, bbls.	lb.	.70 - .75

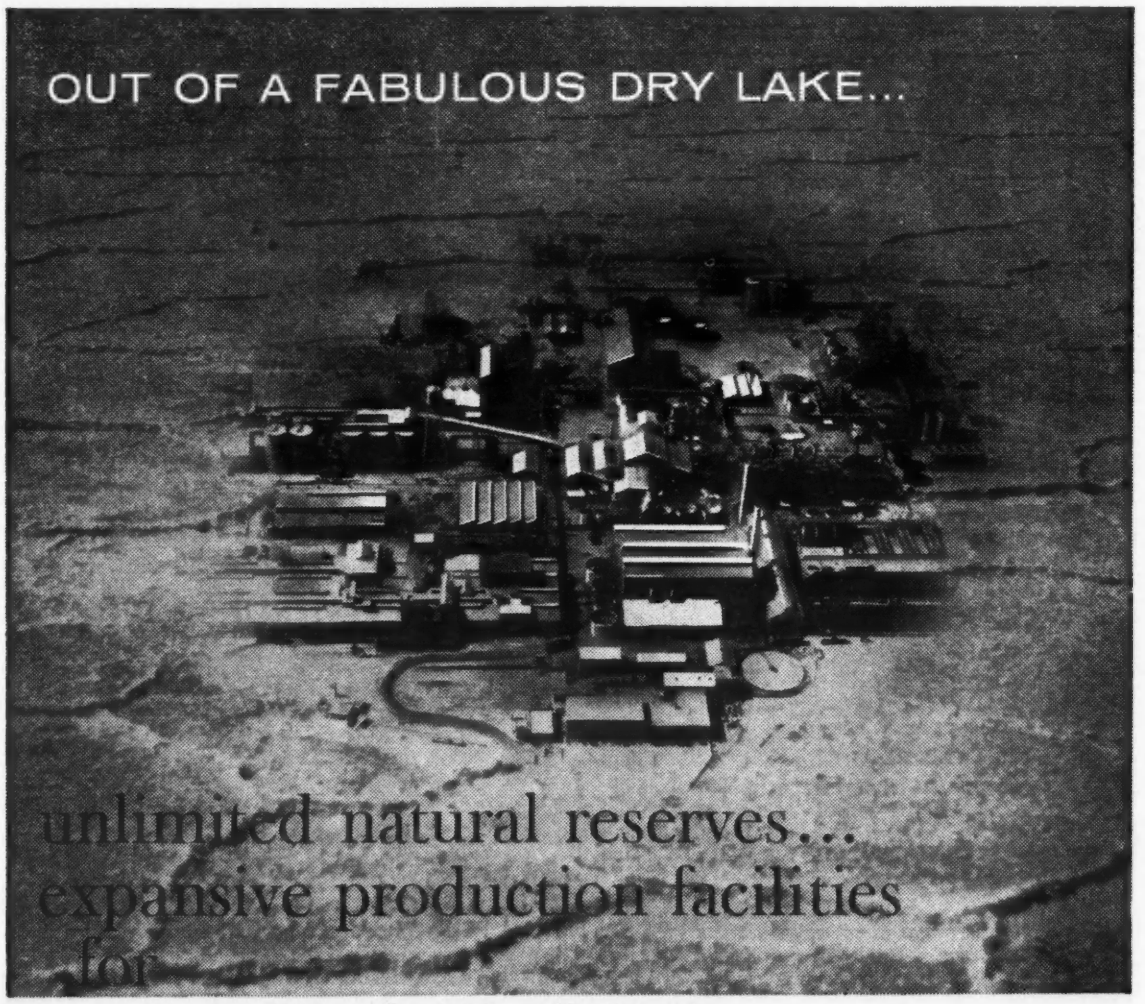
BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd cyls., c.l., refy	lb.	.21 - —
cyls., l.c.l., refy	lb.	.22 - —
tanks, dlvd.	lb.	.12¾- —
Butene-1, tanks, works	lb.	.0625- —
Butene-2, tanks, works	lb.	.0570- —
n-Butyl acetate, ferment, dms., c.l., frt. alld	lb.	.17 - —
dms., l.c.l., same basis	lb.	.18½- —
tanks, same basis	lb.	.14½- —
Syn., dms., c.l., dlvd. E.	lb.	.17 - —
dms., l.c.l., same basis	lb.	.18½- —
tanks, same basis	lb.	.14½- —
sec-Butyl acetate, syn., dms., c.l., dlvd. E	lb.	.14¾- —
dms., l.c.l., same basis	lb.	.16¼- —
tanks, same basis	lb.	.12¼- —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E	lb.	.42½- —
dms., l.t.l. same basis	lb.	.43½- —
tanks, same basis	lb.	40 —
Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash		
n-Butyl alcohol, ferment, dms., c.l., frt. alld.	lb.	.18 - —
dms., l.c.l. frt. alld.	lb.	.19½- —
tanks, frt. alld.	lb.	.15½- —
n-Butyl alcohol, syn., dms., c.l., dlvd	lb.	.18 - —
dms., l.c.l., frt. alld	lb.	.19½- —
tanks, dlvd	lb.	.15½- —
Sec-synthetic, dms., c.l., dlvd	lb.	.15 - —
dms., l.c.l., dlvd.	lb.	.16½- —
tanks, dlvd.	lb.	.12½- —
n-Butyl alcohol, tert-synthetic, dms., c.l., frt. alld., dlvd E	lb.	.16 - —
dms., l.c.l., same basis	lb.	.17½- —
tanks, same basis	lb.	.13½- —
Butyl aldehyde (see Butyraldehyde).		
Butyl chloride, dms., c.l., works	lb.	.37½- —
dms., l.c.l., works	lb.	.38¼- —
n-Butyl ether, dms., c.l., works	lb.	.35¼- —
dms., l.c.l., works	lb.	.36 - —
tanks, works	lb.	.33¼- —
Butyl lactate, dms., c.l., frt. alld. E. Rockies	lb.	.42½- —
dms., l.c.l., same basis	lb.	.43½- —
tanks, same basis	lb.	.40 - —
Butyl laurate, dms., works	lb.	.37½- —
Butyl methacrylate, dms., c.l., t.l., works	lb.	.55 —
dms., l.c.l., works	lb.	.55½- —
Butyl oleate, refd., dms., l.c.l., works	lb.	.32 —
Butyl phenylacetate, dms.	lb.	4.50 4.60
Butyl phthalate (see Dibutyl phthalate)		
Butyl stearate, dms. c.l. frt. alld E. of Rockies	lb.	.27¼- —
dms., l.c.l., same basis	lb.	.28¼- —
Butylamine (see Mono-, Di- and Tri-butylamine).		
tert-Butylamine, dms., c.l., t.l., f.o.b. works	lb.	.47 - —
dms., l.c.l., same basis	lb.	.47½- —
tc., t.t., same basis	lb.	.45 - —
Butylated hydroxyanisole, food grade dms. dlvd.	lb	4.75 - —
6-tert-Butyl-m cresol (see Mono-tert-butyl-m-cresol)		
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p cresol).		
1,3-Butylene glycol, dms. c.l., t.l., dlvd	lb.	.20½- —
dms., t.c.l., t.t.l., f.o.b. works	lb.	.22 —
tanks, dlvd	lb.	.18 —
p-tert-Butylphenol, bgs., c.l., dlvd.,	lb.	.27½- —
bgs., t.c.l., works	lb.	.28½- —
Butyraldehyde, dms., c.l., dlvd	lb.	.22 —
dms., l.c.l., dlvd.	lb.	.23½- —
tanks, dlvd	lb.	.19½- —
Butyric acid, 99%, dms., c.l., frt. equald	lb.	.34 —
dms., l.c.l., same basis	lb.	.34½- —
tanks, same basis	lb.	.32½- —
Butyric ether (see Ethyl butyrate).		
Butyrolactone, dms., c.l., t.l., works.	lb.	.40 - —
dms., l.c.l., same basis	lb	43 —
n-Butyronitrile, dms., c.l., dlvd	lb.	.56½- —
dms., l.c.l., dlvd.	lb.	.57½- —
tanks, dlvd.	lb.	.54 - —

C

Cacao butter (see Cocoa butter).		
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies	lb.	5.55 - —
Light shade, bbls., same basis	lb	4.65 - —
medium shade, bbls., same basis.	lb.	5.30 - —
Medium light shade, bbls., same basis	lb.	4.90 - —
Orange-red shade, bbls., same basis	lb.	4.30 - —
Yellow, all shades, bbls., frt. alld. E of Rockies	lb	2.85 - —
Cadmium chloride, 400-lb. dms., f.o.b. shipping point	lb.	1.49 - —
Cadmium iodide, 25-lb fib dms	lb	6.75 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd	lb.	1.60 - —
Cadmium nitrate, purif. cryst., 400-lb. dms., less than 5,000 lbs., f.o.b. shipping point.	lb.	.89 - —
400-lb. dms., 5,000 lbs. or more, same basis	lb.	.87 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies	lb.	1.65 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis	lb.	1.95 - —
Red, light shade, bbls., same basis.	lb.	1.72 - —
Red, medium shade, bbls., same basis	lb.	1.87 - —
Red, medium light shade, bbls., same basis	lb.	1.80 - —
Red, maroon shade, bbls., same basis	lb.	2.03 - —
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies	lb.	2.76 - —
Orange, bbls., same basis	lb.	1.58 - —
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis	lb.	1.72 - —
Red, dark shade, bbls., same basis.	lb.	2.56 - —
Red, light shade, bbls., same basis.	lb.	1.88 - —
Red, medium shade, bbls., same basis	lb.	2.00 - —
Red, medium-light shade, bbls., same basis	lb.	2.23 - —
Cadmium-selenide, lithopone, yellow, all shades, bbls., frt alld. E of Rockies	lb.	1.19 - —
Caffeine, NF, citrated, dms., 100-lb. lots or more	lb.	2.70 - —
USP, nat., cryst., anhyd., dms., 100-lb lots or more	lb.	2.10 - —
Caffeine, USP nat., cryst. hydrous, dms., 100-lb lots or more.	lb	1.96 - —
Caffeine, USP, syn., anhyd., dms., 100-lb. lots or more	lb.	2.10 - —
cryst. hydrous, dms., 100-lb lots or more	lb	1.96 —
Cajuput oil, native, cns.	lb	1.75 2.00
Redist. USP cns	lb	1.90 2.10
Calamine USP dms.	lb.	.34 —
Calamus oil bots.	lb.	12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works	gram	.54 - —
1-10 kilo lots	gram	.55 - —
Calciferol in edible oil (see Viosterol).		
Calcium p-aminosalicylate trihydrate fib. dms., 100 lbs. or more frt. adjusted	lb.	3.10 - —
Calcium bromide, NF jars, 100 lbs. or more	lb.	1.10 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd	ton.	149.00 - —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l. works	ton.	10.50 - —
Calcium carbonate, chalk, whiting, 325 mesh, bgs. c.l., works.	ton.	32.00 -34.00
water-grd., ¼ to 10 microns, bgs., c.l., works	ton.	30.00 —
10 to 20 microns, bgs., c.l., works	ton.	17.00 -18.00



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bgs., c.l., works	ton	30.00	-38.50
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medium, bgs. c.l., works	ton	38.00	—
bgs., l.c.l., works	ton	48.00	-53.00
Calcium carbonate, surface treated,			
bgs., c.l., works	ton	42.00	-44.00
bgs., l.c.l., works	ton	57.00	-59.00
ultrafine, bgs., c.l., works	ton	117.50	167.50
bgs., l.c.l., works	ton	137.50	-187.50
Calcium chloride, conc., flake or pellet 94-97%, paper bgs., c.l. works, frt equald	ton	39.30	- —
Flake, 77-80%, paper bgs., c.l., works, frt. equald	ton	32.00	- —
Liquor, 40%, tanks, frt equald	ton	12.50	- —
Powd., 77% min., paper bgs. c.l., works, frt equald	ton	37.00	- —
Purit., gran. dms	lb	.27	—
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald	ton	29.50	- —
dms. l.c.l. works frt equald	ton	36.00	-73.00
USP gran. dms.	lb	.32	—
Calcium chromate, bgs., dlvd	lb.	.37	—
Calcium cyanide dms., c.l. dlvd E. of Rockies	lb.	.20	—
dms., l.c.l. same basis	lb.	.24	.55
Calcium cyclamate, 100-lb dms	lb.	1.95	—
Calcium gluconate, USP, AA grade, 100-lb dm. ton	lb.	73½	—
USP. powd 100-lb dm. ton	lb.	.66½	—
Calcium hydride lump dms. works.	lb	2.20	3.00
Calcium hypochlorite, high test, gran. 45-lb. cs., dlvd E. of Rockies	cs	23.85	-25.60
100-lb dms. same basis	dm	33.30	-36.55
Calcium hypophosphite dms. 1,000-lb lots	lb	1.28	—
Calcium iodide, 25-lb. jars, works.	lb.	4.27	- —
Calcium lactate NF. dms. f.o.b. works	lb.	.43	- .46
Calcium mandelate USP, 150-lb. dm., works	lb.	3.25	- —
Calcium naphthenate, liq. 4% Ca., dms., frt equald	lb.	.30	- —
Calcium pantothenate, USP, jars, 1 kilo or more	kilo.	35.00	- —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).			
Calcium phenosulfonate, dms	lb	1.24	- 1.25
Calcium phosphate dibasic, USP, bgs. c.l. frt equald 100 lbs.		16.00	- —
Dibasic feed grade, 18½% P, bgs., c.l., t.l. frt. equald	ton	86.00	- —
bgs. c.l., t.l., f.o.b. Texas City works	ton	75.50	- —
bgs., l.c.l.,	ton	96.00	- —
Calcium phosphate, dibasic, feed grade, 21% P., bgs., c.l., t.l., frt. equald	ton	97.65	- —
bgs. l.c.l. frt equald	ton	107.65	- —
Prices of calcium phosphate dibasic in bulk $3 per ton lers than bgs. c.l. prices			
Calcium phosphate monobasic, bgs., 10,000-lb lots, frt equald. 100 lbs.		7.45	- —
bgs., smaller lots, same basis. 100 lbs.		7.95	- —
Tribasic NF, precip., bgs., c.l., works, frt. equald 100 lbs.		9.25	- —
bgs. l.c.l., frt. equald 100 lbs.		10.00	- —
Calcium propionate, any quantity, dms., dlvd E. of Rockies.	lb.	.34½	- —
Prices W of Rockies 3c. per lb. more.			
Calcium phytate bgs., 50 lbs. or more f.o.b. warehouse N Y	lb.	.39	- —
Calcium resinate, precip., dms., frt. alld., works	lb.	.45	- —
Calcium silicate hydrated, bgs., c.l., works	lb.	.06	- —
bgs., l.c.l., works	lb.	.06½	- —
Calcium silicate paint grade (see Wollastonite).			
Calcium stearate, ctns., c.l.	lb.	.39	- —
ctns., l.c.l	lb.	.40	- .44
Calomel, NF mild, powd., dms., 100-lbs., f.o.b. works	lb.	4.32	- —
NF mild, precip., dms., 100-lbs., f.o.b works	lb.	5.67	- —
Camphene, 46° m.p., dms incl., c.l., works	lb.	.15	- —
dms. incl., l.c.l. same basis	lb.	.16½	- —
tanks, same basis	lb.	.12½	- —
Camphene chlorinated, 67-69% (see Toxaphene)			
Camphor, monobromated, NF, dms., kgs	lb.	3.63	- 3.70
Nat. USP powd., cs., 100-lb. lots.	lb.	.60	- .65
tablets, 1-oz. cs.	lb.	.85	- .90
Nat. USP. gran., bbls., 2,000-lb. lots	lb.	.59	- —
Camphor, syn., tech., 1 bbl. or more.	lb.	.48	- —
USP, gran., powd., bbls., 1,000-lb. lots	lb.	.58	- —
bbls., smaller lots	lb.	.59	- —
tablets, ctns., 1,000-lb. lots.	lb.	.80	- —
ctns., 500-lb. lots	lb.	.81	- —
ctns., smaller lots	lb.	.82	- —
Camphor oil, sassafrassy, dms.	lb.	.35	- .55
White, dms.	lb.	.26	- .50
Cananga oil, native, cns.	lb.	5.00	- 6.50
Rectified, cns.	lb.	7.25	-10.00
Candelilla wax, crude, bgs	lb.	.55	- .56
Refd., pure, bgs	lb.	.60	- .62
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.			
Cantharides, Chinese, cs.	lb.	1.00	- —
powd., bgs.	lb.	1.15	- —
Russian, bgs.	lb.	2.00	- 2.15
powd., bgs.	lb.	2.15	2.30
Capric acid, dms	lb.	.29¼	-.31¾
tanks	lb.	26¾	—
Caprolactum monomer, bgs., c.l., t.l., f.o.b. works	lb.	.52	- —
bgs., l.c.l., t.t.l., same basis	lb.	.57	- —
tanks, same basis	lb.	.49	- —
Caprylic alcohol 85% dms., c.l., t.l., works	lb.	.19	- —
dms., t.t.l., same basis	lb.	.19½	- —
tanks, frt. equald.	lb.	.16½	- —
Sec., 92-99% dms., c.l., f.o.b. works	lb.	.22	- —
dms. l.c.l., f.o.b. works	lb.	.23	- —
tanks, f.o.b works	lb.	.19½	- —
Caprylic acid, dms	lb.	.29¼	-.31¾
tanks	lb.	26¾	—
Capsicum (see Pepper red)			
Capsicum oil (see Capsicum oleoresin).			
Capsicum oleoresin NF, from dom. pepper, dms	lb.	4.00	- —
NF, from African pepper, dms.	lb.	4.50	- —
Caraway oil, NF, dms	lb.	3.75	- —
Caraway seed Danish, bgs.	lb.	.16	—
Dutch, bgs.	lb.	.18	- —
Polish, bgs	lb.	.17¼	- —
Carbazole 97%, bbls. ton lots, works	lb.	1.05	- —
Carbon black, channel, rubber beads, bulk, c.l., works	lb.	.08	- —
bgs c.l., works	lb.	.08¼	- —
bgs., l.c.l. works	lb.	.16¼	- —
Carbon black, furnace, fast extruding, bgs., c.l., works	lb.	.08¾	- —
ctns., l.c.l., whse.	lb.	.13⅛	- —
Carbon black, high abrasion, bulk, c.l., works	lb.	.07¼	- —
bgs., c.l., works	lb.	.07¾	- —
bgs., l.c.l., dlvd. or whse	lb.	.14⅛	- —
high modulus, bgs., c.l., works.	lb.	.06¼	- —
ctns., l.c.l., whse.	lb.	.13	- —
semi-reinforcing, bgs., c.l., works	lb.	.05¾	- —
bgs., ctns., l.c.l., whse	lb.	.12½	- —
pigment, high color beads, ctns., c.l., works	lb.	.78	- —
ctns., l.c.l., dlvd or whse	lb.	.87	- —
medium color, uncompressed, bgs., c.l., works	lb.	.14	- —
bgs., l.c.l., dlvd or whse	lb.	.22½	- —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E	ton	60.00	-115.00
bulk, 3,000,000 lbs or more, dlvd Metropolitan areas. E	ton	55.00	- —
Solid, bulk, wholesale works	ton	85.00	- —
Carbon disulfide, 55-gal dms., c.l., works, frt equald to competitive points	lb.	.071	- —
55-gal. dms., l.c.l., same basis	lb.	.086	- .091
5-gal dms., 30 dms to c.l., same basis	lb.	.131	—
5-gal. dms., less than 30 dms., same basis	lb.	.161	—
tanks, dlvd.	lb.	.0520	- —
Carbon tetrachloride CP, consumers, dms. c.l., frt alld.	lb.	.12¾	- —
dms., l.c.l., frt alld.	lb.	.15¼	- —
Tech., consumers dms. c.l., t.l., frt alld	lb.	.11¾	- —
dms., l.c.l. t.t.l. frt. alld	lb.	.14¼	- —
tanks, frt alld	lb.	.10¾	- .11¼
Carboxymethyl cellulose (see CMC).			
Carbromal, NF dms. 100-lb lots, works	lb.	4.00	4.25
dms., smaller lots, works	lb.	4.10	4.75
Cardamom oil, NF, bots	lb.	43.00	-45.00
Cardamom seed, bleached "A"	lb.	3.45	- —
Bleached "B"	lb.	3.15	- —
Decorticated Alleppey, cs	lb.	2.15	- —
Guatemala, cs.	lb.	2.35	- —
Green, Alleppey, bgs.	lb	2.15	- —
Ceylon, bgs.	lb.	2.20	- —
Carmine No 40, NF, bulk 100-lb lots or more dlvd.	lb.	16.80	—
bulk, smaller lots, dlvd.	lb.	16.90	-17.30
Carnauba wax, chalky, bgs., ton lots.	lb.	.74	Nom.
North Country, No. 2, crude, bgs., ton lots	lb.	.80	- .82
refd., pure, ton lots	lb.	.87	- .88
North Country, No. 3, Ceara, crude, ton lots	lb.	.68	- .70
North Country, No. 3, Parnahyba, crude, ton lots	lb.	.71	- .72
No. 3, refd., pure, bgs., ton lots.	lb.	.77	- .78
No. 1, Ceara, yellow, bgs., ton lots.	lb.	.98	- 1.00
Parnahyba, yellow, bgs., ton lots.	lb.	1.00	- 1.02
Powdered carnauba wax, 20 to 100 mesh 8c per lb higher			
Carotene tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram.		.20½	- —
in carrot oil, 5,000,000 to 8,000,000 A units per lb. dms., works million units.		.12	- —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units.		.144	- —
b-Carotene, in vegetable oil, sus. solid suspension 400,000 A units per gram cns	kilo.	57.60	- —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns	kilo.	72.00	—
Pure, cryst., 1,600,000 to 1,670,000 A units per gram cns	kilo.	240.00	—
Carvol, bots.	lb	5.00	5.40
Cascara sagrada bark, bulk	lb.	.32	—
Casein dom. edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works	lb.	.56	- —
edible, acid precip., 80 mesh, bgs. 10,000-lb lots or more, works	lb.	.64	- —
Imp., inedible acid-precip., grd., Argentine, bgs., c.l., ex-dock Eastern seaports	lb.	.17¾	-.18¼
Australian, bgs., c.l., same basis	lb.	.22¼	-.22½
Cashewnut shell, liquid, treated, dms., c.l., Newark, N.J	lb.	.24	- —
dms. ton lots, same basis	lb.	.25	- —
t.w., same basis	lb.	.22½	- —
Cassella acid, dms. frt. alld., 100% basis	lb	1.44	1.75
Cassia oil, redist., USP, cns	lb.	7.50	9.00
Cassia, Padang, "A," bls	lb.	.31	- —
"B," bls.	lb.	.30	- —
"C," bls.	lb.	.29	- —
Korintje "A," bls.	lb.	.34	- —
"B," bls.	lb.	.30	- —
"C," bls.	lb.	.30	- —

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MICHIGAN CHEMICAL CORPORATION

695 North Bankson Street, Saint Louis, Michigan

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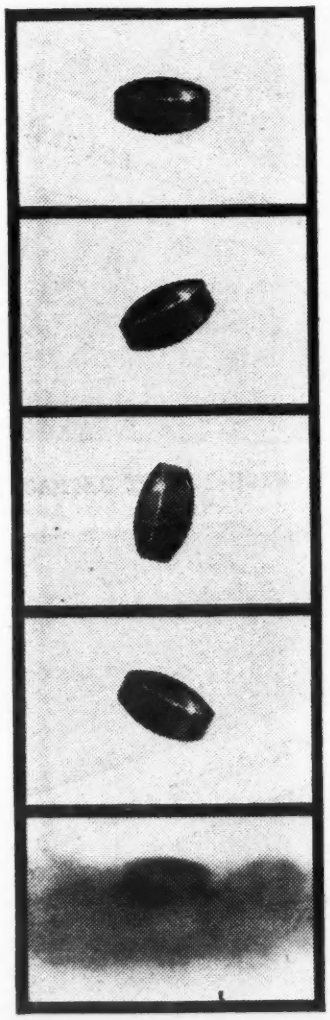
Castor Oil—Cinnamon Bark Oil

Castor oil, dom., blown, dms., c.l.	lb.	.3550-	—
dms., l.c.l.	lb.	.3650-	—
Castor oil, dom., dehydrated, bodied, dms., c.l.	lb.	.2700-	—
dms., l.c.l.	lb.	.2850-	—
tanks	lb.	.2500-	—
dehydrated, unbodied, dms., c.l.	lb.	.2500-	—
dms., l.c.l.	lb.	.2660-	—
tanks	lb.	.2360-	—
hydrogenated, bgs., c.l.	lb.	.2450-	—
bgs., ton lots	lb.	.2850-	—
bgs., l.c.l., dlvd.	lb.	.3050-	—
Castor oil, No. 1, dms., c.l.	lb.	.2150-	—
dms., l.c.l.	lb.	.2300-	—
tanks	lb.	.2000-	—
No. 3, tech., dms., c.l.	lb.	.2125-	—
dms., c.l.,	lb.	.2225-	—
tanks	lb.	.1925-	—
Refd, deod., dms., c.l.	lb.	.2650-	—
dms., l.c.l.	lb.	.2750-	—
tanks	lb.	.2450-	—
USP, dms., c.l.	lb.	.2350-	—
dms., l.c.l.	lb.	.2450-	—
tanks	lb.	.2150-	—
Imported, No. 1, Braz., tanks	lb.	.18¼-	—
Sulfonated, 50%, dms., works	lb.	.15 -	.15½
75%, dms., works	lb.	.19 -	.19½
Castor oil acids, dehydrated, dms.	lb.	.41¼-	.43¼
Split, dms.	lb.	.33¾-	.34¾
Castor pomace, bgs., c.l., works	ton.	35.00 -	—
Castoreum nat., cns.	lb.	5.25 -	—
Syn., cns.	lb.	9.00 -	—

Catechol, CP, cryst., fib., dms., works	lb.	2.17½-	—
Resub., dms., works	lb.	4.29½-	—
Catnip leaves, Southern, bls.	lb.	Nominal.	
Caustic potash (see Potash caustic).			
Caustic soda (see Soda, caustic).			
Cedarleaf oil, USP XIII cns., dms.	lb.	3.25 -	3.50
Cedarwood oil, cns., dms.	lb.	1.00 -	—
Celery seed, French, bgs.	lb.	.37 -	—
Indian, bgs.	lb.	.19 -	—
Cellulose acetate, flake, powd., bgs., t.l., dlvd E	lb.	.36 -	.51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd E	lb.	.545 -	.555
27% butyryl content, bgs. dlvd. E	lb.	.595 -	.605
38% butyryl content, bgs. dlvd. E	lb.	.545 -	.555
38% butyryl content, half-second, bgs., dlvd. E	lb.	.545 -	.555
50% butyryl content, bgs. dlvd. E	lb.	.585 -	.595
Cellulose gum, methyl (see Methyl Cellulose).			
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt alld	lb.	.57 -	—
bgs., smaller lots, same basis	lb.	.59 -	—
Cerium hydrate 74% CeO, fib. dms., 100-lb. lots or more	lb.	1.40 -	—
77% CeO, fib. dms., 100-lb lots or more	lb.	1.74 -	—

Cerium oxalate (see Rare earth oxalate).			
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd.	lb.	1.85 -	1.90
bgs., smaller lots, dlvd.	lb.	2.15 -	—
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E	lb.	.41½-	—
fib. cns., l.c.l., same basis	lb.	.43½-	—
tanks, same basis	lb.	.39 -	—
Extra, cns., c.l., t.l., dlvd. E	lb.	.48½-	—
fib. cns., l.c.l., same basis	lb.	.50½-	—
tanks, same basis	lb.	.46 -	—
Chalk (see Calcium carbonate).			
Chamomile flowers, Hungarian,	lb.	.85 -	1.00
Roman, cs.	lb.	1.50 -	1.75
Chamomile oil, blue Hungarian, bots	lb.	350.00 -	—
Charcoal, activated NF, fib dms., c.l., works	lb.	.34 -	—
fib. dms., 5-ton lots, works	lb.	.35 -	.35½
fib. dms., smaller lots, works	lb.	.36 -	.59
Charcoal, black (see Charcoal, activated).			
Charcoal, bone (see Bone black).			
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant	ton.	55.00 -	—
briquets, bulk, c.l., f.o.b. plant	ton.	80.00 -	—
5-lb. paper bgs., c.l., same basis	ton.	106.00 -	—
20-lb. paper bgs., c.l., f.o.b. plant,	ton.	90.00 -	—
40-lb. paper bgs c.l., same basis	ton.	86.00 -	—
Chenopodium oil, NF, cns	lb.	4.75 -	5.00
Chicago acid, paste, bbls., frt. alld.	lb.	3.21 -	—
Chinawood oil (see Tung oil).			

Chloral, tech., 84% min., dms., c.l., works	lb.	.18 -	—
dms., l.c.l., works	lb.	.20 -	—
tanks, multiple units, 5 cars,	lb.	.19 -	—
dms., l.c.l., works	lb.	.21 -	—
Chloral hydrate, USP, jars, 1,000-lb. lots	lb.	1.00 -	—
jars, 500-lb. lots	lb.	1.03 -	—
jars, 100-lb. lots or less	lb.	1.05 -	—
Chlordan, agricultural, dms., c.l., frt. alld	lb.	.65 -	—
dms., l.c.l., 5,000-10,000-lb. lots, frt alld	lb.	.66 -	—
Chlordan, clarified, dms., c.l., frt. alld	lb.	.69 -	—
dms., l.c.l., 5,000-10,000-lb. lots, frt alld	lb.	.70 -	—
Chlorinated paraffin, 40%., dms., c.l., frt. alld	lb.	.15 -	—
dms., l.c.l., 10 dms or more, same basis	lb.	.16 -	—
70%, dms., c.l., same basis	lb.	.18½-	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.19½-	—
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l. works	lb.	.60 -	—
ctns., l.c.l. works	lb.	.61 -	—
125 cps. ctns., c.l., works	lb.	.70 -	—
300 cps., ctns., c.l., works	lb.	.80 -	—
Chlorine, liq., cyls., c.l., works, frt equald	lb.	.11 -	—
cyls., l.c.l., Metropolitan area	lb.	.12½-	.13¾
tanks, single units, works, frt. equald 100 lbs.		3.25 -	—
tanks, multiple units, 5 cars, works, frt equald 100 lbs		4.15 -	—
tanks, multiple units, 4 cars, same basis 100 lbs.		4.35 -	—
tanks, multiple units, 2 cars, same basis 100 lbs.		5.35	5.85
tanks, multiple units, 1 car, same basis% 100 lbs.		6.25	7.25
Chloroacetic acid mono, flake, 99%, purif. dms., c.l	lb.	.23½-	.25½
dms. l.c.l	lb.	.24½-	—
tech., flake 96-97%, dms., c.l., dms. l.c.l. frt equald	lb.	.20 -	—
frt. equald	lb.	.19 -	—
2-Chloro-4-aminotoluene, tech., liq., dms., frt alld	lb.	1.03 -	—
4-Chloro-2-aminotoluene, fused, bbls.	lb.	1.38 -	—
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld	lb.	.66 -	—
m-Chloroaniline, dms., c.l., frt. alld.	lb.	.75 -	—
dms., l.c.l., same basis	lb.	.77 -	—
tanks, same basis	lb.	.73 -	—
o-Chloroaniline, dms., c.l., frt. alld	lb.	.52 -	—
dms., l.c.l., same basis	lb.	.54 -	—
tanks, same basis	lb.	.50 -	—
p-Chloroaniline, dms., c.l., frt. alld.	lb.	.77 -	—
dms., l.c.l., same basis	lb.	.79 -	—
o-Chlorobenzaldehyde, dms., t.l., works	lb	1.05 -	—
dms., t.t.l., same basis	lb.	1.20 -	—
p-Chlorobenzaldehyde, dms., l.c.l., works	lb.	1.95 -	—
o-Chlorobenzoic acid, fib. dms., t.l., works	lb.	1.10 -	—
fib. dms., smaller lots, works	lb.	1.25 -	—
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works,	lb.	2.25 -	—
fib. dms., less than 2,000-lbs., same basis	lb.	2.30 -	—
Chloroform, tech., dms., c.l., dlvd, E	lb.	.18 -	—
dms., l.c.l., same basis	lb.	.19 -	—
tanks, same basis	lb.	.17 -	—
Chloroform, USP, dms., c.l., dlvd.	lb.	.27 -	—
dms., l.c.l., dlvd.	lb.	.30 -	—
tanks, minimum 4,000 gals. dlvd.	lb.	.25 -	—
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis	lb.	.81 -	—
Powd., dlvd. E. 100% basis	lb.	.86¼-	—
4-Chloro-2-nitroaniline, powd., dlvd. E	lb.	.86 -	—
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld	lb.	.75 -	—
4-Chloro-2-nitrotoluene, tech., solid, dms., frt alld	lb.	.99 -	—
6-Chloro-2-nitrotoluene tech., solid, dms., frt. alld.	lb.	.20½-	—
o-Chlorophenol, dms., c.l., frt. equald	lb.	.37 -	—
dms. l.c.l., same basis	lb.	.38 -	—
p-Chlorophenol, dms., c.l., frt equald	lb.	.37 -	—
dms. l.c.l., same basis	lb.	.38 -	—
Chloropicrin, comi., cyls., 150 lbs., frt alld	lb	1.07 -	—
cyls., 100 lbs., same basis	lb.	1.08 -	—
cyls., 50 lbs., same basis	lb	1.14 -	—
Chlorosulfonic acid, dms., c.l., frt. equald	lb.	.0465-	—
dms., l.c.l., frt equald	lb.	.0515-	—
tanks, frt equald	lb.	.0415-	—
Chlorosulfonic acid, in stainless steel dms. ½c per lb higher			
o-Chlorotoluene tech. dms., t.l., works	lb.	.37 -	—
dms., l.c.l., t.t.l., same basis	lb.	.38 -	—
Choline bitartrate, 100-lb. dms., frt. equald	lb.	1.25 -	—
Choline chloride, 100-lb. dms., frt. equald	lb.	1.25 -	—
Choline dihydrogen citrate, 100-lb. dms., frt. equald	lb.	1.25 -	—
Chrome green c.p. dark, light medium blue content, 1-15%, bbls dlvd E of Rockies,	lb.	.43 -	—
blue content 16-30%, bbls., same basis	lb.	.44 -	—
medium blue content, 41-45% bbls., same basis	lb.	.44 -	—
blue content, 45-49%, bbls., same basis	lb.	.45 -	—
Chrome green, reduced color 25%, bbls., same basis	lb.	.20 -	—
Chrome green prices 1c. higher W of Rockies			
Chrome orange CP bbls., dlvd E. of Rockies	lb.	.35 -	—
Chrome orange prices 1c higher W of Rockies			
Chrome yellow CP bbls. dlvd E. of Rockies	lb.	.35 -	—
Chrome yellow price 1c higher W of Rockies.			
Chromic acid, 99¾%, dms., c.l., works, frt. equald	lb.	.29½-	—
dms., l.c.l., dlvd. N Y Metropolitan area	lb.	.30	.31
Chromic acid, NF (see Chromium trioxide)			
Chromium acetate, soln., 7½%, dms., 500-2,000-lb lots, works,	lb.	.10	—
Chromium fluoride bbls., works	lb.	.51	.52
Chromium oxide, hydrated, bbls., fib dms. c.l., frt. alld.	lb.	1.20	—
Pure, bgs., c.l., frt alld	lb.	.44½-	—
bgs. l.c.l. same basis	lb.	.45¼-	—
Chromium trioxide NF, bots	lb.	1.15	—
Cinchona bark, NF, red, broken, bgs	lb	.25	—
NF, yellow broken, bgs	lb	.35	.40
Cinnamic acid, refd., bots	lb	2.50	3.50
Cinnamic alcohol, bots	lb.	1.50 -	1.60
Cinnamic aldehyde dms	lb	.80	1.00
Cinnamon Ceylon, No. 2, bgs.	lb.	.53	—
Ceylon, No "0000," bgs.	lb.	.73	—
Cinnamon bark oil, bots	lb.	48.00 -	56.00



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Here is a medicament that must pass through the stomach and dissolve swiftly in the small intestine. The coating is a crucial matter.

It must be easy to apply by conventional means, soluble in organic solvents. It must provide a uniform skin of controllable thickness, must dry quickly without pinholes, and must resist abrasion in tumbling.

The film-forming substance that does these things is *Eastman C-A-P Cellulose Acetate Phthalate*. It performs predictably during coating and in the alimentary tract of the patient.

It steadfastly resists chemical action of the gastric juices and erosion from stomach motion. Tablets coated with *C-A-P* have shown no deterioration after seven days of continuous agitation in artificial gastric juice.

It disintegrates promptly in the small intestine, through hydrolytic action of the intestinal esterases. It works regardless of the rate of stomach emptying, and whether the intestinal environment is acid, alkaline, or neutral.

Eastman C-A-P Cellulose Acetate Phthalate is now available without patent license. For data, prices, and help on specific coating problems, write to ***Distillation Products Industries,*** Rochester 3, N. Y. Sales offices: New York and Chicago • W. M. Gillies, Inc., West Coast • Charles Albert Smith Limited, Montreal and Toronto.

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DPi

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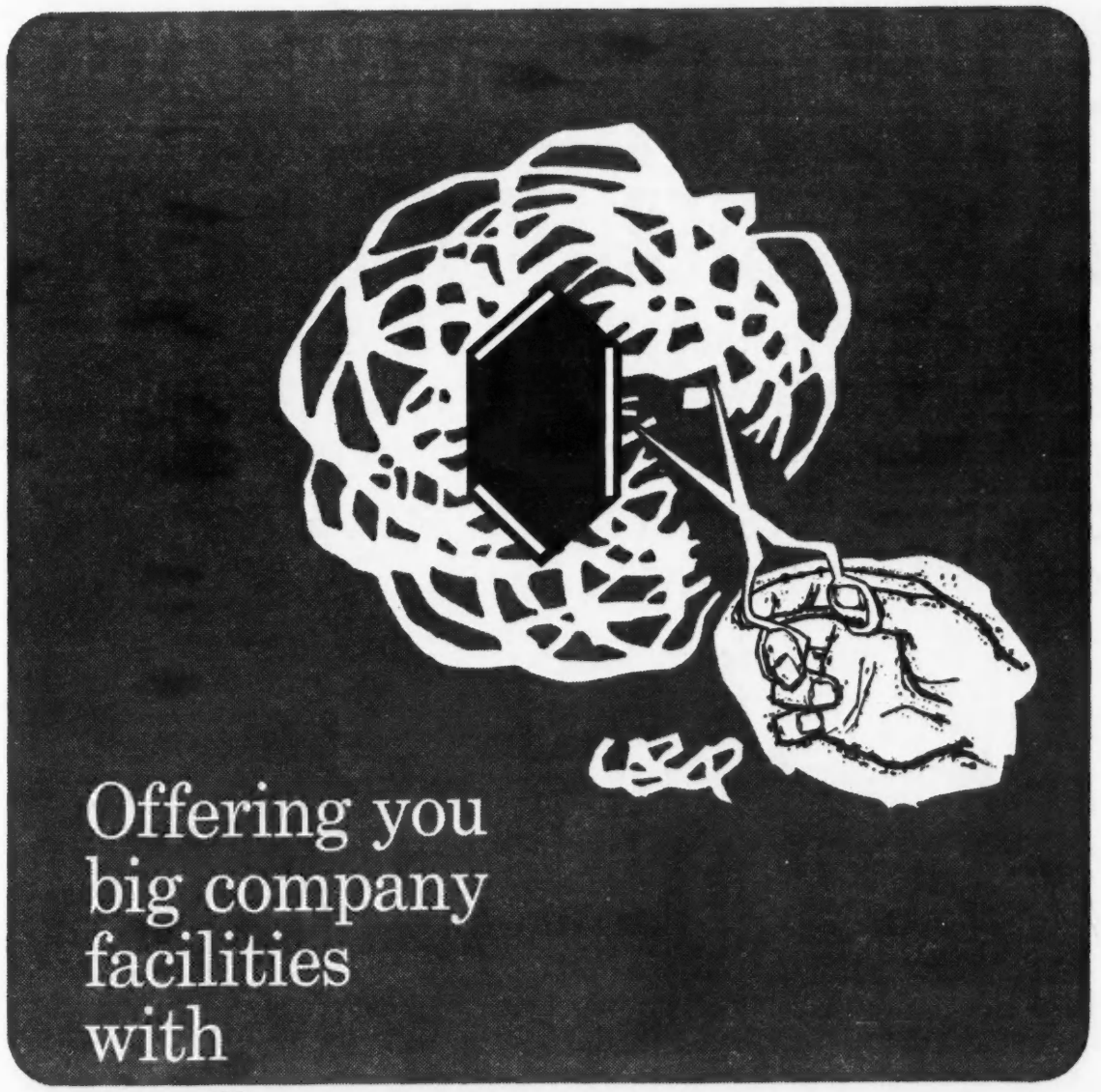
Cinnamon leaf oil, crude, dms	lb.	1.60	2.00
USP. (Cassia), ens., dms	lb.	8.50	13.50
Citral, CP, bots.	lb.	3.60	4.00
Extra, bots.	lb.	3.60	5.00
Syn., dms.	lb.	7.25	7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l	lb.	.29½	.30
bgs., dms., 10,000-lb. lots, 1 shipt	lb.	.30	.30½
bgs., dms., smaller lots	lb.	.30½	.31
Citric acid, USP, hydrous, fine gran., bgs., dms., c.l	lb.	.27½	.28
bgs., dms., 10,000-lb. lots, 1 shipt	lb.	.28	.28½
bgs., dms. smaller lots	lb.	.29	29½
Powdered citric acid ½c. per lb. higher.			
Citronella oil, Ceylon, dms	lb.	1.00	—
Java-type, dms.	lb.	1.00	—
Citronellal, bots., dms	lb.	1.40	1.60
Citronellol, bots., dms.	lb.	1.90	2.50
Citronellol, synthetic, dms	lb.	1.70	—
Civet, artif., bots	lb.	13.75	15.00
Nat., bots.	oz.	8.50	15.00
Clay, ball, dom., airfloated, bgs., c.l., Tenn	ton.	17.50	21.50
crushed shed moisture, bulk, c.l., Tenn	ton.	8.00	11.25
imp. airfloated bgs., c.l., Atl. port	net-ton.	43.00	47.00
lump, bulk, Atl. port	net-ton.	31.50	37.50
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia bgs., c.l., works	ton.	11.00	17.00
Georgia, bgs., l.c.l., works	ton.	13.50	22.50
imp. white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me	long-ton.	23.00	35.00
white, powd., bgs. c.l., ex dock	net-ton.	50.00	—
bgs. l.c.l., ex whse	net-ton.	60.00	70.00
Cleaners naphtha, petroleum, 105° F Flash, tankcars, New Jersey and New York	gal.	18	—
Group 3	gal.	.12875	—
Houston, Texas	gal.	.145	—
140 F Flash, tankcars, New Jersey or New York	gal.	.205	—
Group 3	gal.	.154	—
Houston Texas	gal.	.17	—
Cleve's acid, tech., mixed, solid, dms., frt. alld	lb.	1.05	—
1.6, tech., solid, dms., frt. alld	lb.	.77	—
1.7, tech., dms., frt alld	lb.	2.20	—
Cloves, Madagascar, bgs	lb.	.37	—
Zanzibar, bgs.	lb.	.41	—
Clove bud oil, USP, dms	lb.	2.70	3.60
Clove leaf oil, crude, dms.	lb.	1.23	—
CMC, crude, 96.4% low or medium vis bgs., 23,000 lbs., dlvd. E., 100% basis	lb.	.40	—
96.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd. E., 100% basis	lb.	.42	.50
65%, low or medium vis., bgs., c.l., dlvd. E., 100% basis	lb.	.40	—
l.c.l., dlvd. E., 100% basis	lb.	.42	1.00
purif., high vis. (see Cellulose gum).			
CMC, standard low or medium vis., bgs., 23,000 lbs., works, frt. alld	lb.	.57	—
bgs. smaller lots, same basis.	lb.	.59	1.00
CMC prices W. of the Rockies are 2c. per lb lower and are on a works basis.			
Coaltar, crude, resale for soln., tanks, works	gal.	.17	—
Refd., resale, indust., dms., c.l., ex whse	gal.	.35	—
dms., l.c.l., ex whse	gal.	.39	—
tanks, works	gal.	.20½	—
Coaltar pitch, aluminum, bulk, works.	ton.	44.00	—
Carbon and indust., bulk, works.	ton.	44.00	—
Core, bulk works	ton.	40.50	—
Fiber, bulk works	ton.	48.00	—
Roofing, 140-155°F., Federal Specification RP-381 Type 1 tanks, works	ton.	41.00	—
Cobalt acetate, 23.7% Co., dms., dlvd	lb	1.04	—
Cobalt blue, genuine, 250 lb. bbls., dlvd E of Rockies	lb.	4.90	—
Cobalt blue prices 1c. higher W. of Rockies			
Cobalt blue imitation (see Ultramarine blue).			
Cobalt carbonate, 48% Co., powd., bgs., dlvd	lb.	1.45	—
Cobalt chloride, 24.2% Co., dms., dlvd	lb.	.93	—
Cobalt hydrate, 60-61% Co., dms., dlvd	lb.	1.97	—
Cobalt linoleate, fused 8½% Co., dms	lb.	.71½	—
Liq., 6% Co., dms	lb.	.57½	—
Cobalt metal, 99% dms., f.o.b. carrier	lb.	1.50	—
Cobalt naphthenate liq. 6% Co., dms., dlvd	lb.	.48¾	—
Cobalt nitrate 20.1% Co. bbls. dlvd.	lb.	.75	—
Cobalt oxide, black, ceramic grade, 72½ 73½% Co., kgs., dlvd E of Mississippi R.	lb.	1.15	—
70-71% Co kgs. same basis	lb	1.12	—
Cobalt oxide prices W of Mississippi R. 3c. per pound higher			
Cobalt phosphate powd., 32.1% Co., dms., dlvd	lb.	1.35	—
Cobalt resinate, fused 3% Co., dms	lb.	.38½	—
Cobalt sulfate, cryst., 21% Co., dms., dlvd	lb	.64	—
Monohydrated, 33% Co., dms., dlvd	lb.	1.09	—
Cobalt tallate 6% Co., dms. dlvd.	lb.	.44	—
Cocaine, USP ens., 100-oz lots, f.o.b works	oz.	17.50	—
Cocaine hydrochloride, ens. 100-oz lots f.o.b works	oz.	13.75	—
Cocillana bark bls	lb.	.18	.20
Cocoa butter, bgs	lb.	.63	.68
Coconut oil, crude, tanks, New York	lb.	.13⅞	—
tanks, Pac. coast	lb.	.12	—
Refd., deodorized, dms	lb.	.19	.20
Coconut oil acids, dist., dms	lb.	.23½	.26
tanks	lb.	.21	—
double dist. (stripped), dms	lb	.24½	.27
tanks	lb.	.22	—
Cod oil, dms. spot	lb	08⅜	.08½
Codeine, NF, ens., 100-oz lots	oz.	13.25	—
Codeine hydrochloride ens., 100-oz. lots	oz.	11.75	—
Codeine phosphate USP, ens., 100-oz lots	oz.	10.25	—
Codeine sulfate USP ens., 100-oz. lots	oz.	10.75	—
Codliver oil, USP, dms	gal	1.40	1.70
Cohosh root, black, bls	lb	.20	.25
Blue, bls.	lb	.20	.25
Colchicine USP, bots.	oz.	29.00	—
Colchicum root, bls	lb.	.35	.45
Colchicum seed, bgs	lb.	.75	.80
Collodion, USP dms	lb.	.32½	—
USP flexible dms.	lb.	.34	—
Colocynth pulp, bls.	lb.	.75	—
Colombo root, bls	lb.	.16	.18
Condurango bark bls	lb.	.18	.20
Congo copal gum, No. 1, bgs	lb.	.26	.27
No. 2, bgs.	lb.	.23	.25
No. 3, bgs.	lb.	.21	.24
Copaiba balsam, ens., dms	lb.	.65	1.10
Copaiba oil ens.	lb	1.35	2.00
Copper acetate bbls., c.l., works.	lb.	.53	—
bbls., l.c.l., works	lb.	.54	—
Copper carbonate, 55%, dark dense, works	lb.	34.85	—
bgs., l.c.l., works	lb.	36.35	—
Copper chloride, cupric, anhyd., dms., works	lb.	.44	.44½
cryst., dihydrate, dms., works.	lb.	.30	.30¼
cryst., dried., dms., works	lb.	.38¼	.38¾
Copper chloride, cuprous, dms., works	lb.	.39¼	.42¼
Copper cyanide, tech., dms., 20,000-lb lots or more	lb.	.609	—
dms., 1,000-lb lots or more	lb.	.619	—
dms., smaller lots	lb.	.639	.65
Copper gluconate, dms	lb	3.20	—
Copper hydrate drv, dms, c.l., frt. E. of Miss	lb.	.52½	—
dms., l.c.l., same basis	lb.	.53	—
Copper metal, electrolytic dlvd. Valley, basis	lb.	.30	—
Copper naphthenate liq., 8% Cu, dms frt alld	lb.	.26½	—
Copper nitrate, tech., cryst., dms., works	lb.	.30¾	.32¼
Copper oleate, solid, 9% Cu, dms., works	lb.	.45	—
Copper oxide black bbls 100-5,000-lb. lots, works	lb.	.46¼	—
Copper oxide, red 97% USN Type 1, bbls., 100-5,000-lb lots.	lb.	.47½	—
90%, USN Type II, bbls. 100-5,000-lb lots or more, works	lb.	.46½	—
Copper quinolinolate, 18% Cu, dms., ton lots	lb	4.25	—
10% active quinolinolate, dms	lb	1.14	1.15
Copper resinate, precip., dms., frt. alld	lb.	.47	—
Copper sulfate, CP, gran., dms., works	lb.	.1885	—
Cryst., 99%, bgs., c.l., works. 100 lbs.		12.25	—
bgs., l.c.l., works	100 lbs.	12.75	15.25
Copper sulfate, monohydrated, 35%, dms., c.l., works	100 lbs.	23.00	—
dms., l.c.l., works	100 lbs.	23.75	—
Tribasic, distributors, bgs., c.l., works	100 lbs.	29.60	—
bgs., l.c.l., works	100 lbs.	31.10	—
Copper undecylenate, dms	lb	2.75	—
Copra, Atl., Gulf ports, c.i.f.	ton.	167.50	—
Pac. ports, c.i.f	ton.	162.50	—
Coriander oil, USP, bots.	lb.	7.25	8.75
Coriander seed, Moroccan, bgs.	lb.	.20	—
Rumanian, bgs.	lb.	.18	—
Yugoslavian bgs.	lb.	.08½	—
Corn oil, crude, tanks, works	lb.	.13¾	—
Foots (soapstock) acid, 95%, tanks, New York	lb.	.05⅝	—
Refd., salad, dms	lb.	.1948	.1975
tanks	lb.	.1748	—
Corn oil acids, dist., dms	lb.	.14¾	.17¼
tanks	lb.	.12¼	—
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min.	100 lbs.	7.30	—
paper bgs., l.c.l.	100 lbs.	7.45	—
Corn syrup, 43° Be., tanks, dlvd. N.Y.	100 lbs.	6.30	—
non-ret. dms., c.l., same basis.	100 lbs.	7.23	—
Corrosive sublimate (see Mercuric chloride).			
Cortisone acetate, USP bots., kilo or more	gram.	1.05	1.75
Costus oil, bots	oz.	6.00	—
Cottonseed meal, 41%, bgs., Memphis	ton.	54.00	—
Cottonseed oil, crude, tanks, South, East	lb.	.10¼	.10⅝
tanks, Valley	lb.	.10⅛	—
tanks, Texas, Lubbock	lb.	.10	.10⅛
tanks, Texas, Waco	lb.	.10⅛	.10¼
Foots (soapstock), acid, 95%, tanks, Texas, Waco	lb.	.04	—
Refd., salad, dms.	lb.	.15⅞	.16⅛
tanks	lb.	.13⅞	—
Cottonseed oil acids, dist., dms	lb.	.14¾	.17¼
tanks	lb.	.12¼	—
Coumarin, NF, cryst., dms	lb	3.30	3.40
Cramp bark, NF bls	lb	.90	1.00
Cream of tartar (see Potassium bitartrate)			
Creosote carbonate NF bots. chys.,	lb	3.05	3.20
Creosote, coaltar, crude, tanks, works, frt adjusted	gal.	.24	—
Crude, soln 80%, tanks, works.	gal.	226	—
Refd., dms., c.l., works	gal.	50	—
dms., l.c.l., same basis	gal	62	—
tanks, same basis	gal	38	—
West Coast creosote prices computed on a basis of 24c per gallon for straight oil and 20c. per gallon for coaltar			
Creosote, beechwood, chys., dms., f.o.b. works, dlvd. in Metropolitan area	lb.	1.72	1.77
Hardwood, NF, chys., dms., same basis	lb.	1.42	1.47
Pinewood dms. incl., c.l., works.	lb.	.0611	—
dms. incl., l.c.l., works	lb.	.0684	—
dms. incl., l.c.l. ex whse, New York	lb.	.0795	—
tanks, works	lb.	.0511	—



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small company maneuverability

PITT-CONSOL'S ability to cut through red tape to assure prompt delivery is just one of many conveniences available to you that normally are associated only with smaller producers of chemicals. When you specify PITT-CONSOL you also get high purity products produced under the latest technical methods—precisely controlled . . . Abundant raw materials of petro-chemical and coal tar origin, backed by the research and resources of one of the largest companies in the coal industry, safeguard continuity of supply and service to you.

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PITT-CONSOL CHEMICALS

PITT-CONSOL Chemical Company

191 Doremus Avenue • Newark 5, N. J.

A SUBSIDIARY OF CONSOLIDATION COAL COMPANY

HIGH PURITY PHENOLS, CRESOLS, CRESYLIC ACIDS • RUBBER CHEMICALS • ARYL MERCAPTANS

Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range non-ret. dms., c.l., frt. alld lb. .16½ - —
non-ret dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .145 - —
Cresol, USP, 50% 204°C. dry above 207°C., wide distillation range non-ret dms., c.l., same basis lb. .18 - —
non-ret dms., l.c.l., same basis. lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98% dms., c.l., works. lb. .60 - —
dms., l.c.l., works lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
2,97% 2°C. dms. c.l., frt. equald. lb. .22 - —
dms., l.c.l. same basis lb. .23 - —
tanks same basis lb. .20 - —
o-Cresol 30.5°C. m.p and over, ret., dms., c.l., frt equald lb. .17 - —
ret dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30°-30.49°C m.p., dms., c.l., frt. equald lb. .16½ - —
ret. dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .14½ - —
o-Cresol, 30.5°C. m.p. and over, ret.

Cresol, 29°-29.9°C. m.p., dms., c.l., frt equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C. m.p., dms. c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd lb. .53 - —
tanks, dlvd. lb. .49 - —
2,3-Cresotic acid dms., ton lots, works lb. .70 - —
dms., smaller lots, works lb. .72 - —
p-Cresyl methyl ether, cns lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades dms., c.l., t.l., frt equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —
dms., l.c.l., same basis gal. 1.25 - —
tanks, frt. equald gal. 1.00 - —
Cresylic acid, coaltar, imp., meta-para content 25% or less, f.o.b works, frt. equald, to competitive points, 50 dms. or more. gal. 1.03½ - —
less than 50 dms., same basis gal. 1.05 - 1.15
tanks, same basis gal. 1.00 - —

Crotonaldehyde, 91-93%, dms., l.c.l. works lb. .23 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs.13.00 - —
bgs., l.c.l., works 100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 - —
bgs., t.t.l., works lb. .22 - —
Cubeb berries, NF, bgs. lb. 1.00 - —
Powd., cs. lb. 1.15 - —
Cubeb oil, cns. lb. 9.00 -12.00
Cumene, dms., c.l., works lb. .12 - —
dms., l.c.l., works lb. .14 - —
tanks, works lb .11 - —
Cumin seed, Iranian, bgs. lb. .20 - —
Moroccan, bgs. lb. .36 - —
Turkish, bgs. lb. .19 - —
Cumin seed oil, bots., cns. lb.15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract. ton.57.00 - —
Fertilizer, pulv. 21% N, bgs., works unit-ton 2.85 - —
Cyanamide, fertilizer, indust. grade, bgs, c.l., works ton.75.00 - —
bgs., l.c.l., works ton.96.00 - —
Indust grade 6-16 mesh, dms., c.l., works ton.120.00 - —
dms. t.c.l., works ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd E of Rockies gal 1.02 - —
dms. l.c.l. same basis gal. 1.10 - —
dms., c.l., dlvd W of Rockies gal. .77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works gal. .55 - —
98% tech. 40-dm. lots or more, f.o.b works gal. .56 - —
5-39 dms., same basis gal. .60 - —
tanks, same basis gal. .36 - —

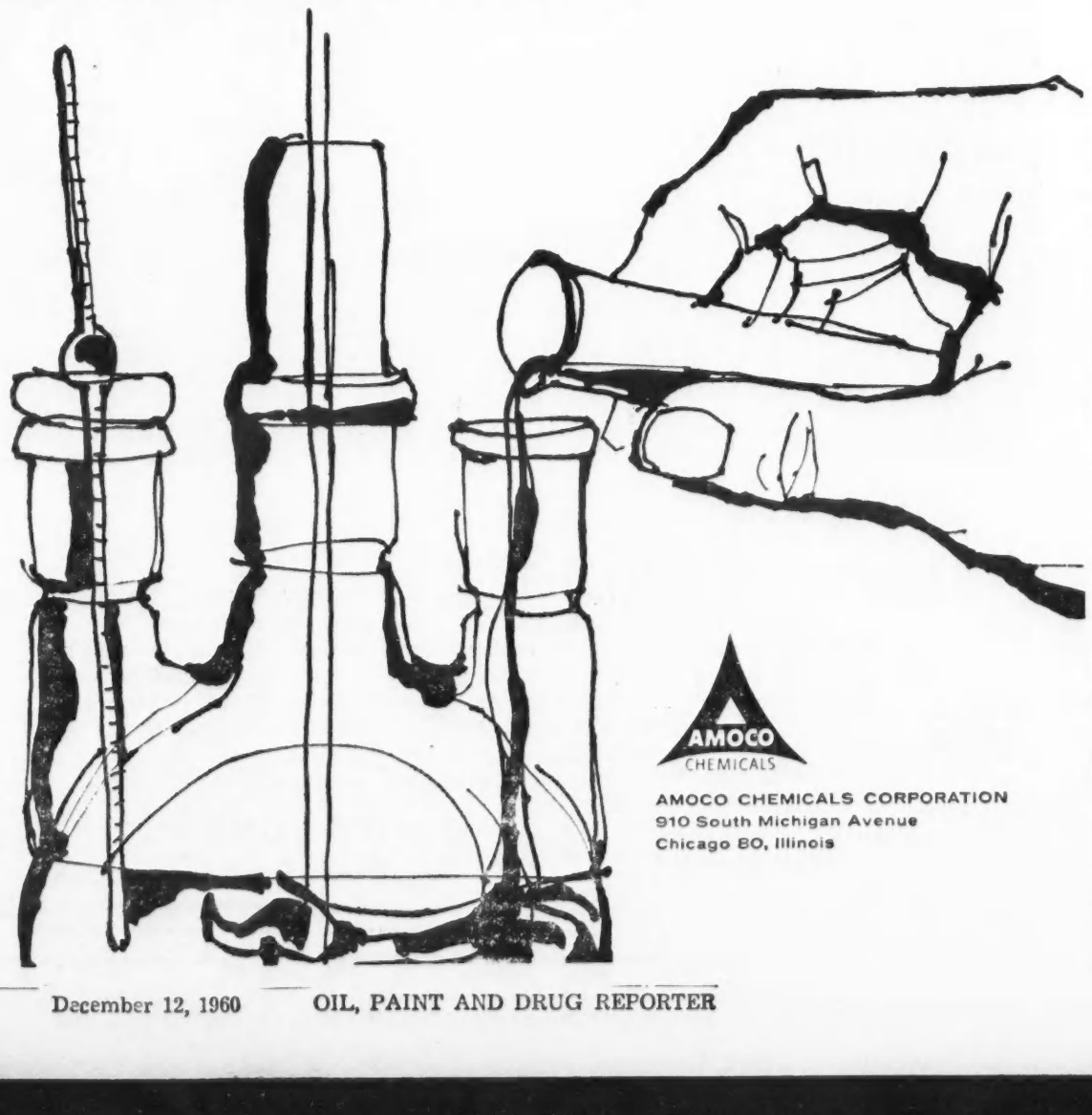
Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. .28½ - —
dms., t.c.l., works, same basis. lb. .29½ - —
tanks, works, same basis lb. .36 - —
Cyclohexanone, tech., dms., c.l., works lb. .33½ - —
dms., t.c.l., works lb. .34½ - —
tanks, works lb. .31 - —
Cyclohexylamine, tech., dms., c.l., works lb. .49 - —
dms., l.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cypress oil, bots. lb. 5.30 - —

D

2,4-D tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
bgs. dms. t.c.l., same basis lb. .45 - .49
2,4-D butyl ester dms. c.l., works. lb. .43 - —
dms., t.c.l., same basis lb. .48 - .52
tanks, same basis lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works lb. .43 - —
dms., t.c.l., works lb. .48 - .52
tanks, works lb. .42 - —
Dammar gum Batavia, A E. cs lb No stocks.
East India, Batu, bold, bgs lb. .15½ - .18
nubs and chips, bgs. lb. .10 - .11
black, bold bgs lb. .15½ - .18
nubs and chips, bgs. lb. .12¼ - 13½
unscraped, bgs. lb. .13 - .14¼
pale, chips, bgs. lb. .15 - 17
pale, nubs, bgs. lb. .20¾ - 24
Siam, cs lb. .31½ - 34
Singapore, No. 1, bgs. lb. .35 - .40
No 2, bgs. lb. .29 - 32
dust, bgs. lb. .18 - 20
No 3, bgs. lb. No stocks.
Dandelion root, bls lb. .35 - 40
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - 47
fib. dms., t.c.l., works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .23 - —
bgs., smaller lots, same basis. lb. .25 - —
fib dms., c.l., same basis lb. .24 - —
fib. dms., smaller lots, same basis lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
i-Decanol, tech., dms., c.l., dlvd. E. lb. .43½ - —
dms., t.c.l., dlvd. E. lb. .45½ - —
tanks, dlvd. E. lb. .41 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .23½ - —
dms., t.c.l., dlvd. lb. .25 - —
tanks, dlvd. lb. .21 - —
Perfume grade, bots. lb. 1.00 - 2.00
Decyl alcohol, normal (see i-Decanol)
Deertongue leaves, bls. lb. .55 - .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton.57.07 - —
18% P, paper bgs., c.l., works. ton.61.25 - —
19% P, paper bgs., c.l., t.l., works, Houston, Tex ton.74.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common (15-17% free fatty acid), 400-lb. dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400-lb. dms lb. 13 - —
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies, gal. .69½ - —
dms., l.c.l., same basis gal. .74½ - .80½
tanks, dlvd., same basis gal. .53½ - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .72 - —
dms., l.c.l., same basis gal. .77 - .83
tanks, same basis gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd E of Rockies gal. .70½ - —
dms., l.c.l., same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
SD2B, dms., c.l., dlvd. E. of Rockies gal. .69 - —
dms., l.c.l., same basis gal. .74 - .80
tanks, same basis gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l. same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Denatured alcohol, ethyl, SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½ - —
dms., l.c.l., same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
Denatured alcohol, ethyl, SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
Denatured alcohol, SD29, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., l.c.l., same basis gal. .74½ - .80½
tanks, same basis gal. .53½ - —
SD30, dms., c.l. dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Denatured alcohol, ethyl, SD-35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
Denatured alcohol, ethyl, SD-40, dms., dlvd. E. of Rockies gal. .70½ - —
dms., l.c.l., same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb..15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.50 - —
Dextrin, corn, gum paper bgs., c.l., 100 lbs. 9.19 - —
100 lbs. 9.34 - —
canary dark, paper bgs., c.l. 100 lbs. 9.03 - —
paper bgs., l.c.l. 100 lbs. 9.18 - —
indust grade 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 8.93 - —
paper bgs., l.c.l. 100 lbs. 9.08 - —
white paper bgs., c.l. 100 lbs. 8.77 - —
paper bgs., l.c.l. 100 lbs. 8.92 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs higher
Dextrose, anhyd., comi., bgs., c.l. 100 lbs. 8.65 - —
bgs. l.c.l 100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib dms., 200-lb dms 100 lbs.14.70 - —
100-lb. dms. 100 lbs.15.20 - —
Hydrated, comi. bgs., c.l., ex whse 100 lbs 7.45 —
bgs c.l., ex whse 100 lbs. 7.60 —
USP, dms. lb. .19¾ - —

AMOCO OXO ALCOHOLS
HIGHEST ESTERIFICATION QUALITY

EACH SHIPMENT OF ISOOCTYL AND DECYL ALCOHOL IS TRIPLE CHECKED FOR QUALITY BY: 1. HIGH TEMPERATURE ESTERIFICATION WITH PHTHALIC ANHYDRIDE. 2. ACID COLOR WITH CONCENTRATED SULFURIC ACID. 3. ESTERIFICATION COLOR AFTER HEAT AGING. SKILLED TECHNICAL SERVICE AVAILABLE.



AMOCO CHEMICALS

AMOCO CHEMICALS CORPORATION
910 South Michigan Avenue
Chicago 80, Illinois

Diacetone alcohol, acetone-free, dms., c.l., divd lb. .15½- —
dms., t.c.l., divd. lb. .17 - —
tanks, divd. lb. .13 - —
Tech., dms., c.l., divd. lb. .15 - —
dms., t.c.l., divd. lb. .16½- —
tanks, divd lb. 12½- —
Diacetyl, flavor grade, bots. lb. 3.30 - 4.30
Di-sec-amyl phenol, dms., c.l., works lb .32 - —
dms., t.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., t.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Diallylamine, dms., c.l., divd. lb .98½- —
dms., t.c.l., divd. lb. 1.00 - —
tanks, divd lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., t.c.l., same basis lb. .94 - —
tanks same basis lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, teed grade, c.l., t.l., dms., divd. lb. .65 - —
t.t.l., dms., same basis lb. .68 - —
Food grade c.l., t.l. dms., divd. lb. .65 - —
dms. t.t.l., same basis lb. .68 - 1.10
Tech., dms., c.l., t.l., divd. lb. .57 - —
dms., t.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., divd. E lb. .31½- —
dms., t.c.l., t.t.l., divd. E lb. .33 - —
tanks, divd E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., divd. E lb. .31½- —
dms., t.c.l., t.t.l., divd. E lb. .33 - —
tanks, divd. E lb. .29 - —
Dibutyl phthalate, dms., c.l., divd. E lb. .31 - —
dms. t.c.l., same basis lb. .32½- —
tankcars, tanktrucks 2,000 gals., same basis lb. .28½- —
tanktrucks, 1,000-1,999 gals., same basis lb. .29 - —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., t.c.l., works lb. .68½- —
tanks, works lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld lb. .65½- —
Dibutylamine, dms., c.l., divd lb. .55½- —
dms., t.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., divd. lb. .28½- —
dms., t.c.l., divd. lb. .30 - —
tanks, divd. lb. .26 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms. t.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —
o-Dichlorobenzene dms., c.l., frt. alld. E lb. .12¾- —
dms., t.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., t.o.b. works, frt. alld. E lb. .12 - —
dms. 2,000 lbs or more same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., t.c.l., or t.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., divd. E lb. .15½- —
dms., t.c.l., t.t.l., same basis lb. .17 - —
tanks same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms. t.c.l., same basis lb. .75 - —
Dichloropentanes dist., dms., c.l., works lb. .05 - —
dms., t.c.l., works lb. .06 - —
tanks works lb. 03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine dms. c.l., works. lb. .54 - —
dms. t.c.l., works lb. .55 - —
tanks works lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms c.l. works frt. alld. lb. .47½- —
fib. dms., t.c.l., same basis lb. .49 - —
Dicyclopentadiene dms., c.l., t.o.b. works lb. .14½- —
dms., t.c.l., same basis lb. .14¾- —
tanks, same basis lb. .12 - —
Didecyl phthalate dms., c.l., works. lb. .28½- —
dms., t.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2,000 gals. lb. .26 - —
tanktrucks 1,000-1,999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., divd. lb. 1.85 - —
dms., t.c.l. divd. lb. 1.90 - —
Diethanolamine dms., c.l., divd. E. lb. .27 - —
dms., t.c.l., same basis lb. .28½- —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., t.t.l. frt. alld. lb. .28½- —
tanks, frt alld lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., t.o.b. works lb. .47½- —
dms., t.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., divd lb. .69½- —
dms., t.c.l., divd. lb. .71 - —
tanks, divd lb. .67 - —
Diethyl oxalate, dms., c.l., t.o.b. works lb. .42½- —
dms., t.c.l. same basis lb. .43½- —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., divd. lb. .27½- —
dms., t.c.l., divd. lb. .29 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 - —
Diethyl sulfate dms., c.l., works lb. .19½- —
dms., t.c.l., works lb. .20¼- —
tanks, works lb. .17½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., t.c.l. same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer dms. c.l., t.l., works. lb. 2.30 - —
5-44 dm lots, works lb 2.35 - —
1-4 dm lots, works lb 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —
Diethylamine dms., c.l., divd E lb. .52 - —
dms., t.c.l., same basis lb. .53½- —
tanks, same basis lb. .49½- —
N,N-Diethylaniline dms., c.l., frt. alld lb. .57 - —
dms., t.c.l., same basis lb. .58 - —
tanks, same basis lb. 55 - —
Diethylbenzene, 380 lb. dms., c.l., t.l., frt. alld., Zone 1 lb. .17½- —
f.o.b., Zone 2 lb. .18½- —
dms., t.c.l., c.l., f.o.b. Zone 1 lb. .19½- —
f.o.b. warehouse points, Zone 2 lb. .20½- —
Diethylbenzene, tankcars, Zone 1 lb. .15 - —
Zone 2 lb. .16 - —
Zone 1 is East of the Rockies. Zone 2, West of the Rockies.
Di-2-ethylhexyl adipate (see Di-iso-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-iso-octyl phthalate).
Diethylene glycol dms. c.l., divd E. lb. .17¾- —
dms., t.c.l., same basis lb. .19¼- —
tanks, same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½- —
dms., t.c.l., works lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., t.c.l., works lb. .32¼- —
tanks, divd. E. lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾- —
dms., t.c.l., works lb. .31½- —
tanks, divd. E. lb. .28¼- —
Diethylene glycol monoethyl ether, dms., c.l., divd lb. .22½- —
dms., t.c.l., divd. lb. .24 - —
tanks, divd. E. lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., t.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., divd lb. .21 - —
dms., t.c.l., divd. lb. .22½- —
tanks, divd. E. lb. .18½- —
Diethylenetriamine, dms., c.l., divd. E lb. .44 - —
dms., t.c.l., divd. E. lb. .45½- —
tanks, divd. E. lb. .41½- —
Diethylstilbesterol, USP, bots. 10-kilo lots kilo 100.00 147.50
bots. 1-kilo lot kilo 110.00 152.50
Digitalis leaves USP dom. dms lb 1.25 —
Digitoxin USP bots gram 4.20 —
Diglycol laurate, dms., ton lots lb. .32½- —
Diglycol stearate, dms., t.l. lb. .26 - —
Diglycolic acid bgs. c.l., t.l., works. lb. .15½- —
bgs., t.c.l., works lb. .16 - —
Dihexyl sebacate dms., c.l., works. lb. .66 - —
dms., t.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate, bulk. gram .03 - —
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs or more lb 1.11 - —
dms., 1,050 lbs to 20,000 lbs. lb. 1.13 - —
dms., 150 lbs to 1,050 lbs lb. 1.15 - —
Di-isobutyl ketone, dms., c.l., divd. lb. .17 - —
dms., t.c.l., divd. lb. .18½- —
tanks, divd lb. .14½- —
Di-isobutyl phthalate, dms., c.l., divd. E. lb. .31½- —
dms., t.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 - —
Di-isobutylene dms. c.l., divd. E lb. .10 - —
dms., t.c.l., divd. E lb. .11½- —
tanks, divd E. lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., works lb. .28½- —
dms. t.c.l., same basis lb 30 —
tanktrucks, 1,000-1,999 gals., works lb. .26½- —
tankcars, tanktrucks, 2,000 gals., works lb. .26 - —
Di-iso-octyl sebacate, dms., c.l., works lb 62 —
dms., t.c.l., works lb. .61¼- —
tanks, works lb 60 —
Di-isopropanolamine, dms., c.l., divd. lb. 23¼ —
dms., t.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., divd. E. of Rockies lb. .50½- —
dms., t.c.l., same basis lb. .52 —
tanks, same basis lb. 48 —
Dillweed oil, dom., bots., dms. lb. 5.25 - —
Dimethyl anthranilate, cns. lb 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., divd lb. 3.50 - —
Dimethyl ethanolamines, anhyd., dms., c.l. divd lb. 1.225 - —
dms., t.c.l., divd. lb. 1.235 - —
tanks, divd. lb. 1.20 - —
70% dms., c.l., divd., 100% basis, contained amines lb. .68¼- —
dms., t.c.l., divd., 100% basis. lb. .69½- —
tanks, divd., 100% basis lb. .66 —
Dimethyl hydroquinone, dms. lb. 1.90 2.20

on the move in chemicals...

Because most chemicals are made from other chemicals, the chemical industry is its own best customer. At Olin Mathieson, for example, sulfuric acid, soda ash, chlorine and caustic soda are finished products. But they are starting points for other chemical manufacturers whose output, in turn, may go into producing still other chemicals.

To help the chemical industry keep pace with our expanding economy and growing population, Olin Mathieson is on the move. Currently we are increasing caustic/chlorine production in important growth areas—providing new facilities for greater production of basic organic chemicals—marketing urea of highest purity.

Change is the challenge, and the future depends on the ability to predict change and prepare for it. As a step in providing for your future, let us review your chemical requirements now. In terms of future—or present—developments, our experience in chemical supply can be useful.

7459

Olin Mathieson

CHEMICALS DIVISION, BALTIMORE 3, MD.

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Ammonia • Bicarbonate of Soda • Carbon Dioxide • Caustic Soda • Chlorine • Formaldehyde • Hydrazine and Derivatives • Hypochlorite Products • Methanol • Muriatic Acid • Nitrate of Soda • Nitric Acid • Soda Ash • Sodium Chlorite Products • Sodium Methylate • Sulfur (Processed) Sulfuric Acid • Urea • Ethylene Oxide • Ethylene Glycols • Polyethylene Glycols • Propylene Oxide • Propylene Glycol • Polypropylene Glycol Propylene Dichloride • Ethanolamines • Glycol Ethers • Surfactants • Ethylene Dichloride

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Trisodium Phosphate • Trisodium Phosphate Chlorinated • Sodium Tripolyphosphate • Tetrasodium Pyrophosphate • Sodium Hexametaphosphate Monosodium Phosphate • Disodium Phosphate • Sodium Acid Pyrophosphate • Tetrapotassium Pyrophosphate • Sulfuric Acid • Hydrofluoric Acid Sodium Silicofluoride • Sodium Fluoride • Teox® 120 Surfactant

Dimethyl Phthalate—Dyes

Dimethyl phthalate, dms., c.l., works	lb.	.29	- —
dms., t.c.l., works	lb.	.30½	- —
tanktrucks, 1,000-1,999 gals., same basis	lb.	.27	- —
tankcars, tanktrucks, 2,000 gals., same basis	lb.	.26½	- —
Dimethyl sebacate, dms., c.l., works.	lb.	1.31	- —
dms., t.c.l., works	lb.	1.30	- —
tanks, works	lb.	1.28	- —
Dimethyl sulfate, ref. dms., c.l., works	lb.	.17½	- —
ref. dms., t.c.l., works	lb.	.18½	- —
tanks, works	lb.	.16½	- —
Dimethyl sulfide, dms., c.l., works.	lb.	.18	- —
dms., t.c.l., works	lb.	.18½	- —
tanks, works	lb.	.15	- —
Dimethylamine, 25% soln., dms., c.l., frt. equald. 100% basis	lb.	.38	- —
dms., t.c.l., frt. equald. 100% basis	lb.	.38½	- —
tanks, frt. equald. 100% basis.	lb.	.28	- —
40% soln., dms., c.l., frt. equald. 100% basis	lb.	.35	- —
dms., t.c.l., frt. equald. 100% basis	lb.	.35½	- —
tanks, frt. equald. 100% basis.	lb.	.28	- —
N,N-Dimethylaniline, dms., c.l., frt. alld	lb.	.26	- —
dms., t.c.l., same basis	lb.	.29	- —
tanks, same basis	lb.	.26	- —
N,N-Dimethylformamide, dms., c.l., t.l., works	lb.	.32½	- —
dms., t.c.l., works	lb.	.33	- .34
tanks, works	lb.	.30	- —
2,4-Dinitroaniline, dms., frt. alld	lb.	.75	- —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies.	lb	1.56	- —
Dinitroaniline orange toner prices 1c higher W of Rockies.			
m-Dinitrobenzene, 89°C., dms.	lb.	.26	- —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C. dms., c.l., frt. alld. E	lb.	.17¼	- —
dms., t.c.l., frt. alld. E.	lb.	.17¾	- —
tanks, frt. alld. E.	lb.	.17	- —
2,4-Dinitrophenol bbls.	lb.	.41	- —
2,4-Dinitrotoluene, oil, dms.	lb.	.11	- —
Refd. 63°C. dms.	lb.	.23	- —
Dioctyl adipate, dms., c.l., works	lb.	.42½	- —
dms., t.c.l., works	lb.	.43½	- —
tanks, works	lb.	.40	- —
Dioctyl phthalate, dms., c.l., frt. alld	lb.	.28½	- —
dms., t.c.l., frt. alld	lb.	.30	- —
tanktrucks, 1,000-1,999 gals., same basis	lb.	.26½	- —
tankcars, tanktrucks, 2,000 gals., same basis	lb.	.26	- —
Dioctyl sebacate, dms., c.l., works.	lb.	.61¼	- —
dms., t.c.l., works	lb.	.62¼	- —
dms., t.c.l., works	lb.	.62¼	- —
tanks, works, dlvd.	lb.	.59¼	- —
1,4-Dioxane, dms., c.l., dlvd. E	lb.	.31½	- —
dms., t.c.l., dlvd. E	lb.	.33	- —
tanks, dlvd. E.	lb.	.29	- —
Prices in the west are 2c. per lb. higher.			
Dipentaerythritol, bgs., c.l., t.l., dlvd. E	lb.	.34	- —
bgs., t.c.l., l.t.l., dlvd. E	lb.	.35	- —
Dipentene, dest.-dist., dms., c.l., works	gal.	.58	- —
dms., t.c.l., works	lb.	.62	- —
dms., t.c.l., ex whse.	gal.	.76	- —
tankscars, works	gal.	.41	- —
Steam dist., dms., c.l., works, South	gal.	.72	- —
dms., t.c.l., dlvd. New York	gal.	.91	- —
tanks, works, South	lb.	.55	- —
Dip oil (see Tar acid oil).			
Diphenolic acid, 1,000-lb. or more, bgs., works	lb.	.75	- —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works	lb.	1.00	- —
Diphenyl, bgs., c.l., t.l., works	lb.	.16¾	- —
bgs., t.c.l., works	lb.	.18½	- —
tanks, works	lb.	.15¾	- —
Diphenyl oxide perfume grade, cns.	lb.	.55	- .70
Diphenyl phthalate, dms., c.l., works.	lb.	.52	- —
dms., t.c.l., works	lb.	.54	- —
Diphenylamine, refd., flake, bgs., c.l., works frt. equald.	lb.	.33	—
bgs., t.c.l., same basis	lb.	.34	—
Refd., fused, tanks, same basis	lb.	.29	- —
Refd., diphenylamine in dms., ½c. per lb higher.			
Diphenylguanadine, bgs., dms., ton lots, frt. alld.	lb.	.51	- —
bgs., smaller lots, frt. alld.	lb.	.52	- —
Diphenylhydantoin-sodium, USP, dms	lb.	5.00	- 5.60
Dipropylene glycol, dms., c.l., frt. alld	lb.	.17	- —
dms., t.c.l., frt. alld.	lb.	.18¼	—
tanks, frt. alld.	lb.	.14¼	—
Dipropylene glycol methyl ether, dms., c.l., dlvd. E	lb.	.20	- —
dms., t.c.l., same basis	lb.	.21¼	- —
tanks, same basis	lb.	.18½	- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works	lb.	1.80	- —
Di-o-tolylguanidine, dms., ton lots, frt. alld.	lb.	.71	- —
dms., smaller lots, frt. alld.	lb.	.72	- —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld	lb.	.55	- —
Divinylbenzene, 20-25%, dms., c.l., works, frt equald	lb.	.20	- —
dms., t.c.l., same basis	lb.	.21	- —
tanks, same basis	lb.	.19	- —
50-60%, dms., c.l., works, 100% basis	lb.	1.00	- —
dms., t.c.l., works, 100% basis.	lb.	1.05	- —
tanks, same basis	lb.	.90	- —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E	lb.	.75	- —
dms. t.c.l., t.t.l., same basis	lb.	.76	- —
Dodecylbenzene, dms., c.l., t.o.b., works, frt equald	lb.	.134	- —
dms., t.c.l., same basis	lb.	.144	- —
tanks, same basis	lb.	.11½	- —
Dodecylphenol c.l., frt. alld.	lb.	.22½	- —
dms., t.c.l., same basis	lb.	.23½	- —
tanks, same basis	lb.	.20	- —

Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:

Blue, FD&C, No. 1	lb.	15.65	17.60
No. 2	lb.	15.65	17.60
Green, FD&C, No. 1	lb.	15.65	17.60
No. 2	lb.	19.60	22.85
No. 3	lb.	31.30	35.20
Red, FD&C, No. 2	lb.	3.30	- 4.10
No. 3	lb.	19.60	22.85
No. 4	lb	5.55	7.50

Dyes, coaltar, certified colors for drugs and cosmetics 500-lb and 1-lb. lots, dlvd:

Violet, FD&C, No. 1	lb.	15.65	17.60
Yellow, FD&C, No. 1	lb.	9.15	11.05
No. 5	lb	3.30	4.10
No 6	lb	3.30	4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:

Black, D&C, No. 1	lb.	10.50	10.95
Brown, D&C, No. 1	lb.	15.65	16.10
Green, D&C, No. 5	lb.	15.65	16.10
No. 6	lb.	15.65	16.10
No. 7	lb.	14.35	14.80
Orange, D&C, No. 3	lb.	10.50	10.95
No. 4	lb.	19.60	20.05
No. 5	lb	3.80	4.25
Red, D&C, No. 17	lb.	10.50	10.95
No. 18	lb	23.60	24.00
No. 19	lb.	15.00	15.45
No. 21	lb	3.90	4.35
No. 22	lb.	10.50	10.95
No. 28	lb.	24.15	24.65
No 33	lb.	17.00	17.45
Violet, D&C, No. 2	lb.	15.65	16.10
Yellow, D&C, No. 7	lb.	10.50	10.95
No 8	lb.	10.50	10.95
No. 10	lb.	13.05	13.50
No 11	lb.	13.05	13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb and 1-lb. lots, dlvd.:

Blue, Ext., D&C, No. 1	lb.	15.65	16.10
Green, Ext., D&C, No. 1	lb.	15.65	16.10
Red, Ext., D&C, No. 1	lb.	13.05	13.50
Yellow, Ext. D&C, No. 1	lb	10.50	10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color index scale or prototype), contract dlvd. No.

11110	Brilliant scarlet BN	lb.	1.79	- —
13390	Fast blue SR	lb.	1.43	- —
14025	Yellow 2G	lb.	1.26	- —
14030	Orange R, extra, conc.	lb.	1.64	- —
14..45	Chrome black T	lb.	.77	- —
14720	Rubine XX, conc.	lb.	1.59	- —
15510	Orange Y, extra conc.	lb.	.83	- —
15575	Orange RR	lb.	.99	- —
15620	Fast Red A, conc	lb.	1.61	- —
15705	Chrome blue black R, conc.	lb.	1.12	- —
16150	Scarlet 2RL	lb.	1.22	- —
16255	Brilliant scarlet 3RN, conc.	lb.	1.26	- —
16230	Fast light, orange 2G	lb.	1.39	- —
17590	Brown PG	lb.	3.00	- —
18050	Phloxine 2G	lb.	1.05	- —
18055	Fuchsine 6B	lb.	1.55	- —
18965	Fast yellow 2G	lb.	2.32	- —
19140	Yellow XX	lb.	2.48	- —
19555	Yellow NN, conc.	lb.	3.67	- —
20170	Brown Y	lb.	1.53	- —
20470	Blue black, extra, conc.	lb.	1.44	- —
21010	Brown, RX, conc	lb.	1.42	- —
22240	Scarlet B	lb.	2.81	- —
22310	Red FC	lb.	1.57	- —
22311	Brown MCW	lb.	1.47	- —
22610	Blue 2B, extra conc.	lb.	1.53	- —
23500	Red, 4BX, conc.	lb.	1.80	- —
24410	Sky blue FF, extra, conc.	lb.	1.95	- —
24895	Brilliant yellow, conc.	lb.	3.27	- —
26360	Navy blue 3R, conc.	lb.	1.84	- —
26695	Black F, conc.	lb.	2.30	- —
26800	Milling Red 3R, conc	lb.	2.24	- —
27075	Neutral black 2B, conc.	lb.	2.75	- —
27720	Gray L	lb.	2.18	- —
29185	Fast scarlet 4BNC	lb.	2.23	- —
30015	Diazo black VJ conc	lb.	2.48	- —
30045	Yellow brown K, extra	lb.	1.32	- —
30235	Black EB, 200%	lb.	1.33	- —
30295	Green BY, conc.	lb.	1.07	- —
35660	Brown B	lb.	2.89	- —
37565	Naphthol SWF	lb.	1.85	- —
40000	Yellow 2G	lb.	1.44	- —
41000	Yellow 6X	lb.	2.45	- —
42000	Green V, crystals	lb.	2.73	- —
42040	Brilliant green G crystals	lb.	3.62	- —
42090	Blue EG	lb.	1.85	- —
42100	Milling green 6B, conc.	lb.	4.78	- —
42640	Violet 4BXN	lb.	2.43	- —
43830	Brilliant blue, BBG	lb.	2.44	- —
44045	Blue B, extra conc.	lb.	3.61	- —
45170	Red BX	lb.	4.76	- —
50415	Nigrosine SSJ	lb.	1.03	- —
52015	Blue GXX	lb.	2.33	- —
58065	Alizarin red SC	lb.	3.64	- —
59700	Golden orange GFD, single paste	lb.	2.70	- —
59710	Flaming orange 6RD double powder	lb.	4.90	- —
59800	Dark blue BO, single paste.	lb.	2.28	- —
59825	Jade green NC supra, double paste	lb.	1.50	- —
61570	Alizarin green CG, extra	lb.	3.81	- —
63010	Alizarin blue SAPG	lb.	3.90	- —
63615	Alizarin blue black B	lb.	3.26	- —
69625	Blue BLFD double paste	lb.	2.76	- —
70805	Brown BR single paste	lb.	2.03	- —

Dyes, coaltar oil-soluble, 100-lb. drums, dlvd. No.

12140	Oil scarlet BL	lb.	1.87	- —
12055	Oil orange 7078 V	lb.	1.38	- —
26120	Oil red N 1700	lb.	1.94	- —
42535B	Methyl violet base	lb.	1.88	- —
44045B	Victoria blue base	lb.	4.06	- —
50415B	Oil black 8603	lb.	.80	- —
61565	Alizarin cyanine green base.	lb.	6.13	- —
	Spirit black RB	lb.	3.89	- —
	Spirit brown GN	lb	5.30	- —
	Spirit orange R conc.	lb	5.87	- —
	Spirit red B conc	lb.	6.41	- —
Pr. 517	Spirit yellow 2R conc	lb	4.62	- —
Pr. 554	Spirit blue THN	lb.	5.06	- —

ETHYL ALCOHOL

ISOPROPYL ALCOHOL

SECONDARY BUTYL ALCOHOL

ACETONE

METHYL ETHYL KETONE

ETHYL ACETATE

ISOPROPYL ACETATE

SECONDARY BUTYL ACETATE

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You'll find that Enjay is a dependable source for oxygenated solvents for many surface coatings. Enjay Alcohols, Esters and Ketones are being used throughout the surface coatings industry to provide maximum performance at minimum cost. Enjay solvents are available from conveniently located storage facilities for drum, tank car or tank truck delivery. Enjay's complete technical facilities are always at your service to assist with the application of any Enjay chemical. For more information contact: *Home Office:* 15 West 51st Street, New York 19, N. Y. *Other Offices:* Akron • Boston • Charlotte Chicago • Houston • Los Angeles New Orleans • Plainfield, N. J. Southfield, Mich. • Tulsa.

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ENJAY
PETROCHEMICALS

E

Echinacea root, bls.	lb.	1.25	—
Elm bark, grinding, bls.	lb.	.30	.33
Powd., bbls., ½xs	lb.	.60	—
Select, bundles	lb.	.75	—
Emetine hydrochloride, USP, bots.	oz.	48.40	—
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd.	lb.	2.77	—
Eosin red toner, bbls., works	lb.	1.95	—
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots	oz.	.98	1.00
hydrous, bots., 100-oz. lots	oz.	.92	—
Ephedrine hydrochloride, NF, dms., 100-oz., f.o.b. works	oz.	.75	—
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works	oz.	.73	—
USP, powd., dms., 100-oz., same basis	oz.	.73	—
Epichlorohydrin, dms., c.l., dlvd	lb.	.29½	—
dms., l.c.l., dlvd.	lb.	.31	—
tanks, dlvd.	lb.	.27	—
l-Epinephrine base, syn., USP, bots., 100 gram lots	gram	.58	—
Epsom salt (see Magnesium sulfate).			
Erigeron oil, cns.	lb.	11.00	—
Ergot, NF, dms., tin-lined	lb.	2.00	2.50
Eserine salicylate, bots.	oz.	44.00	—
Eserine sulfate, bots.	oz.	86.00	—
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W Va	lb.	.18½	—
Wood-rosin type, dms., c.l., same basis	lb.	.18½	—
Ether (see specific product).			
Ethyl acetate, nat., ferment., 85-88%, dms., c.l., dlvd	lb.	.18	—
dms., t.c.l., dlvd.	lb.	.16½	—
tanks dlvd.	lb.	.12½	—
95-98% dms. c.l., dlvd.	lb.	.15¼	—
dms., l.c.l., dlvd.	lb.	.16¾	—
tanks, dlvd.	lb.	.12¾	—
Ethyl acetate, nat., ferment., 99%, dms., c.l., dlvd	lb.	.15¼	—
dms., t.c.l., dlvd.	lb.	.17	—
tanks, dlvd.	lb.	.13	—
syn., 85-88%, dms., c.l., dlvd	lb.	.15	—
dms., t.c.l., dlvd.	lb.	.16½	—
tanks, dlvd.	lb.	.12½	—
Ethyl acetate, syn., 95-98%, dms., c.l., dlvd	lb.	.15¼	—
dms., t.c.l., dlvd.	lb.	.16¾	—
tanks, dlvd.	lb.	.12¾	—
99%, dms. c.l. dlvd.	lb.	.15½	—
dms., t.c.l., dlvd.	lb.	.17	—
tanks dlvd.	lb.	.13	—
Ethyl acetoacetate, dms., c.l., dlvd.	lb.	.58½	—
dms., t.c.l., dlvd.	lb.	.60	—
tanks, dlvd.	lb.	.56	—
Ethyl acrylate, dms., c.l., t.l., dlvd.	lb.	.34¼	—
dms., t.t.l., dlvd.	lb.	.35¼	—
tanks, dlvd.	lbm.	32¼	—
Ethyl alcohol, 190 pf., USP, tax paid dms., c.l., dlvd. E. of Rockies	gal.	20.63	—
dms., t.c.l., same basis	gal.	20.73	20.84
Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies	gal.	.68	—
dms., t.c.l., same basis	gal.	.78	.89
tanks, same basis	gal	.52	—
Ethyl alcohol, absolute 200 pf., tax paid, dms. dlvd E. of Rockies	gal.	21.75	—
dms., t.c.l., same basis	gal.	21.85	21.96
tanks, same basis	gal.	21.59	—
Ethyl alcohol, denatured (see Denatured alcohol, ethyl)			
Ethyl aminobenzoate, USP (see Benzocaine).			
Ethyl amyl ketone, dms., c.l., dlvd.	lb.	.30	—
dms., t.c.l. same basis	lb.	.21¼	—
tanks, same basis	lb.	.17½	—
Ethyl benzoate, bots.	lb.	.75	1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E	lb.	.43	—
dms., t.c.l., frt. alld. E.	lb.	.45	—
tanks, frt. alld. E.	lb.	.40	—
Ethyl butyl ketone, dms., c.l., t.l., works	lb.	.36	—
dms., t.c.l., t.t.l. works	lb.	.36¾	—
tanks, works	lb.	.34	—
Ethyl butyrate, dms., works	lb.	.85	1.00
Ethyl carbamate (see Urethane).			
Ethyl cellulose, vis. 4 cps., bgs., 5,000 lb lots or more, frt. alld. E	lb.	.73	—
bgs., smaller lots frt alld E	lb.	.75	—
Ethyl cellulose, vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E	lb.	.68	—
bgs., smaller lots, frt. alld. E.	lb.	.70	—
Ethyl chloride, tech., cyls., works.	lb.	20	22
dms., works	lb.	18	20
tanks, works	lb.	10	—
Ethyl cinnamate, cns.	lb.	3.15	3.35
Ethyl ethanolamies, mixed, dms., c.l., dlvd. E	lb.	.43½	—
dms., t.c.l., dlvd. E.	lb.	.44½	—
tanks, dlvd. E.	lb.	.41½	—
Ethyl ether, absolute, ACS, dms.	lb	27	—
Anesthesia, USP dealers, 1-lb cns	lb	1.01	—
½-lb cns	lb	1.09	—
¼-lb cns.	lb	1.21	—
Indust., dms. c.l., dlvd.	lb	13½	—
dms., t.c.l., dlvd. E.	lb	15	—
tanks, dlvd E.	lb	11	—
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E	lb	37	—
dms., t.c.l., t.t.l., dlvd. E	lb	38½	—
tanks, dlvd E.	lb	34½	—
2-Ethyl hexoic acid, tc, higher W. of Rockies.			
2-Ethyl hexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E	lb.	42½	—
dms., t.t.l., same basis	lb.	43½	—
tanks, same basis	lb	40	—
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.			
2-Ethylhexyl alcohol, dms., c.l., dlvd.	lb.	.23¾	—
dms., t.c.l., dlvd.	lb	25½	—
tanks, dlvd.	lb.	.21¼	—
Ethyl iodide, cbys., works	lb.	3.30	—
Ethyl methacrylate, dms., c.l., frt. equald	lb	.52	—
dms., t.t.l., frt. equald	lb.	.52½	—
tanks, frt. equald	lb.	.50	—
Ethyl morphine hydrochloride, USP, bots	oz.	11.85	—
Ethyl oenanthate, dms.	lb.	1.05	1.30
Ethyl oxalate (see Diethyl oxalate).			
Ethyl silicate, dist. (see Tetraethyl orthosilicate).			

Interested personal service—
always—
when you buy from Eastman

Eastman Alcohols

ethyl alcohol
95% and anhydrous

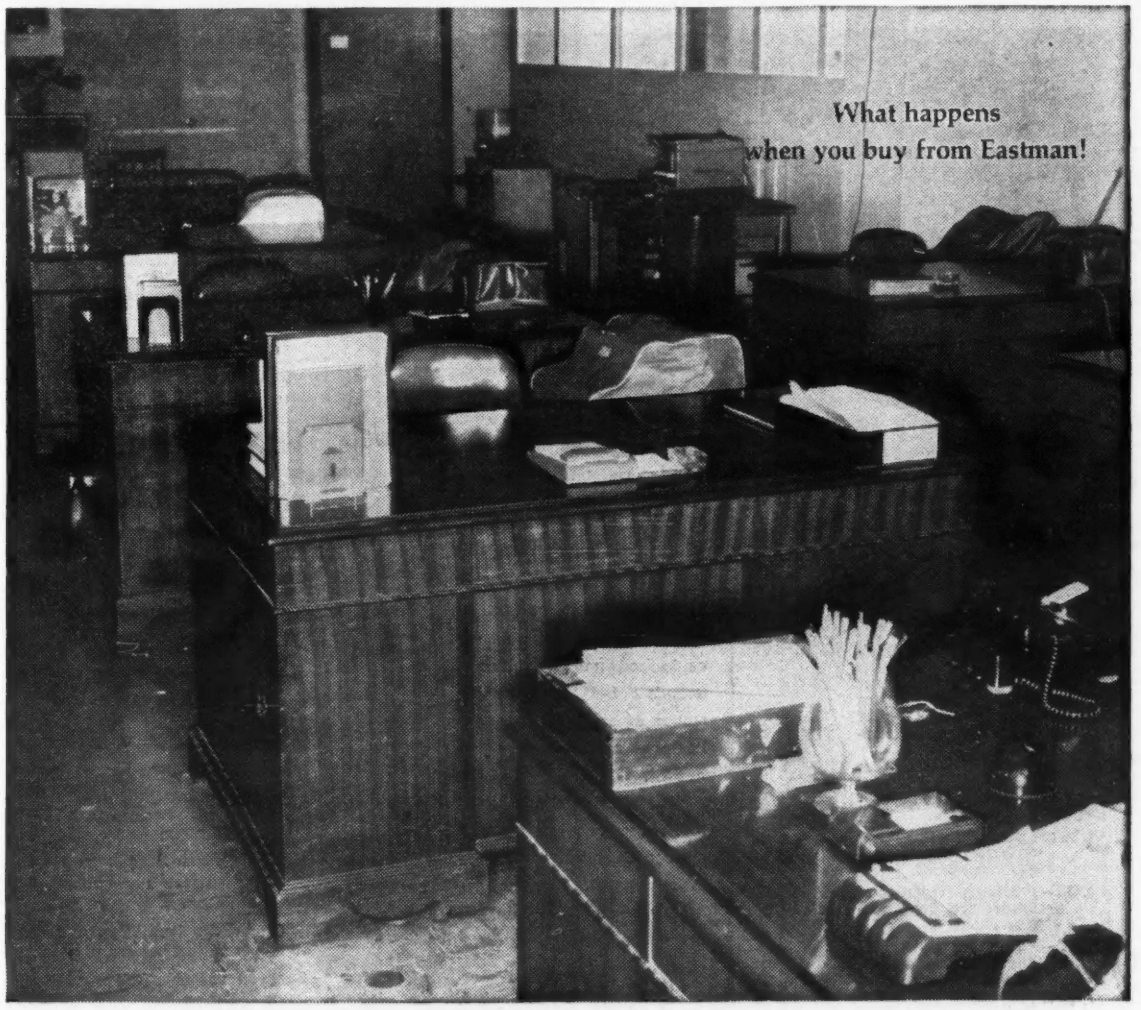
Tecsol®
proprietary
ethyl alcohol
95% and anhydrous

n-butyl alcohol

isobutyl alcohol

2-ethylhexyl alcohol

For properties and shipping information on these and other Eastman products, see **Chemical Materials Catalog, page 363, or Chemical Week Buyers' Guide, page 107.**



"4,500 gallons!...on Labor Day weekend?"

"The customer had reached me at home on the Labor Day weekend with a request for immediate delivery of 4,500 gallons of 2-ethylhexyl alcohol," said one of our New England representatives.

"I almost knew before asking that he was not going to define *immediate* as Tuesday or Wednesday. And he didn't disappoint me.

"'If a truck drove in right now, it would be an hour late,' he said. Then he went on about a very special and unexpected plasticizer order and how he was 'way short on the necessary 2-ethylhexyl alcohol and normally his raw material inventories were adequate and if he could get delivery right away he might be able to keep his process running, etc. So I promised to see what I could do.

"Luckily, I was able to catch our warehouse manager at home and after checking around he seemed to think he could get up a loading crew. I called the customer back to ease his mind a little... that just as soon as we could locate an available tank truck we'd be in business. That's when he told me about his faith in our service—he had already made arrangements for the tank truck.

"Within two hours we loaded and delivered. The customer confided later in the week that it was on time after all, and enabled him to meet his scheduled delivery date."

Generally, we handle orders on a more scheduled, normal-business-hours, few-days'-notice basis. But if ever you feel the need to arrange for your own tank truck, then call us to fill it up—we'll do all we can to meet your requirements, even on Labor Day weekend.

Eastman CHEMICAL PRODUCTS, INC., KINGSPORT, TENNESSEE, Subsidiary of Eastman Kodak Company

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Boston; Buffalo; Chicago, Cincinnati; Cleveland; Detroit; Greensboro, North Carolina; Houston; Kansas City, Missouri; New York City; Philadelphia; St. Louis.
West Coast: Wilson & Geo. Meyer & Company, San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Ethyl silicate 40% available SiO_2, dms., c.l., dlvd	lb.	.44½	—
dms., l.c.l., dlvd	lb.	.46	—
tanks, dlvd	lb.	.43	—
N-Ethyl-a-naphthylamine, dms., works	lb.	1.04	—
N-Ethyl-m-toluidine, tech., tiq., tanks frt. alld	lb.	.83	—
N-Ethyl-o-toluidine, bbls	lb.	.88	—
Ethylamine (see Mono-, Di-, or Tri-)			
N-Ethylaniline, dms., c.l., frt. alld.	lb.	.57	—
dms., l.c.l., frt. alld	lb	.58	—
tanks, frt. alld	lb.	.55	—
Ethylbenzene 99% dms., c.l., t.l., frt. equald	lb.	.14	—
dms., l.c.l., same basis	lb.	.16	—
tanks, same basis	lb.	.11½	—
2-Ethylbutyl alcohol, dms., c.l., works	lb	.30	—
dms., l.c.l., works	lb	.30¾	—
tanks, works	lb	28	—
Ethylene, contract, refy rate	lb	.0475	.052
Ethylene dibromide dms., c.l., frt. equald	lb	.30½	—
dms., l.c.l., frt. equald	lb	.31½	—
tanks, frt. equald	lb	.28½	—

Ethylene dichloride, dms., c.l., dlvd.	lb	.11½	—
dms., l.c.l., same basis	lb	.13	—
tanks, same basis	lb	.09	—
Ethylene dichloride prices W of Rockies, 1c. per lb. higher			
Ethylene glycol, indust., dms., c.l., dlvd E	lb.	.16	—
dms., l.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.13½	—
Ethylene glycol monobutyl ether, dms., c.l., dlvd E	lb.	.22	—
dms., l.c.l., dlvd. E	lb.	.23½	—
tanks, dlvd. E	lb.	.19½	—
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E	lb	.21	—
dms., l.c.l., dlvd. E	lb.	.22½	—
tanks, dlvd E	lb.	.18½	—
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E	lb.	.19½	—
dms., l.c.l., dlvd E	lb.	.20½	—
tanks, dlvd. E	lb.	.17	—
Ethylene glycol monomethyl etner, dms., c.l., dlvd. E	lb.	.21	—
dms., l.c.l., dlvd. E	lb.	.22½	—
tanks, dlvd E	lb.	.18½	—

Ethylene glycol monomethyl ether acetate dms. c.l. dlvd. E	lb.	.29	—
dms., l.c.l., dlvd E	lb	.29¼	—
tanks dlvd E	lb	.27	—
Ethylene glycol monostearate, flake, 150-lb. ctn	lb.	.33	—
Ethylene oxide dms. c.l. dlvd E	lb	.21½	—
dms., l.c.l., dlvd. E	lb.	.24½	—
tanks, dlvd E	lb.	.15½	—
Ethylene trichloride (see Trichloroethylene)			
Ethylenediamine 85-88%, dms., c.l., dlvd E., 100% basis	lb.	.42	—
dms l.c.l. dlvd E. 100% basis	lb	.43	—
tanks dlvd E., 100% basis	lb	.40	—
Ethyl vanillin, 100-lb. fib. dms., 500-lb.	lb.	6.75	—
less than 500-lb.	lb.	7.40	—
Eucalyptol USP cns., dms	lb	.85	1.40
Eucalyptus oil NF rectified 70-75% dms	lb.	.45	—
NF rectified 80-85% dms	lb	.53	.63
Eugenol tech dms	lb	1.45	—
USP dms	lb	2.00	—
Euphorbia herb, bls	lb	.12	.15

F

F salt paste, tech, dms, works	lb	2.30	—
Fennel oil, sweet, USP, cns.	lb.	2.60	—
Fennel seed, Argentine, bgs.	lb	.18	—
French, light, bgs	lb.	.16	—
Indian, light, bgs	lb.	.17½	—
Rumanian, bgs	lb.	.14	—
Yugoslav, light bgs	lb.	.16½	—
Fenugreek seed, Moroccan, bgs.	lb.	.08	—
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs.		7.50	—
dms., l.c.l. works 100 lbs		8.50	—
Ferric chloride indust., cryst., bbls., c.l., works 100 lbs.		5.25	6.75
bbls. l.c.l., works 100 lbs		5.75	7.25
42° Be., photo grade, cbys., c.l., works 100 lbs.		7.25	8.25
sewage grade, tanks, frt equald. 100% basis 100 lbs.		4.00	—
USP cryst., dms. t.l., works	lb.	.08½	—
Ferric citrate gran. dms	lb.	.86	—
Ferric hypophosphite, NF, 175-lb. dm	lb.	4.25	—
Ferric naphthenate, tiq., 6% Fe, dms., frt. alld	lb.	.28¼	—
Ferric oxalate, tech., gran., 50-lb. dm. f.o.b works E	lb.	.89	—
Ferric oxides (see iron oxides).			
Ferric phosphate NF, soluble, gran pearls, cs	lb.	.72	.75
Ferric pyrophosphate, NF VII, soluble, gran. pearls, 225-lb. dm.	lb.	.79	—
Ferric resinate, dms., tan lots, frt. alld	lb.	.45	—
lots, frt. alld	lb.	.40½	—
Ferric stearate dms., c.l., frt. alld.	lb.	.39	—
dms., l.c.l., frt alld	lb.	.40	.44
Ferric sulfate, partly hydrated, bgs., c.l., works	ton.	35.25	—
bgs., l.c.l., works	ton.	36.25	42.25
bulk, c.l., works	ton.	33.25	—
Ferric-ammonium citrate, brown, pearls, NF, gran., dms	lb.	.65	.68
Green pearls, USP XII, gran., dms	lb.	.66	.69
Ferric-ammonium oxalate, fine gran., dms	lb.	.27½	.29½
Ferric-potassium oxalate, fine gran., dms	lb.	.32½	.34½
Ferric-sodium oxalate, fine gran., dms	lb.	.27½	.29½
Ferrous gluconate, USP, 200-lb. dm., frt. equald	lb.	.96	—
Ferrous sulfate, gran., bgs., c.l., works	ton.	34.50	—
bgs., l.c.l., dlvd. Metropolitan area 100 lbs		3.35	4.25
bbls., c.l., works	ton.	40.00	—
bulk, c.l., works	ton.	27.00	—
USP, cryst., bbls., dms	lb.	.09½	.10
Fir balsam, Canada, bbls	gal.	32.00	35.00
Oregon, bbls	gal.	3.40	4.64
Fir oil, Canada, cns	lb	1.75	2.50
Fish oil, refd., alkali, dms.	lb.	.1300	.1350
Kettle-bodied, dms.	lb.	.1530	.1580
Light-pressed, dms.	lb.	.1150	.1200
tanks	lb.	.10	—
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units.		.12	—
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts	ton.	92.00	—
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts.	ton.	88.00	—
Fleaseed (see Psyllium seed).			
Folic acid, USP, oots., fib. dms., kilo lots or more gram.		.30	.44
10% feed grade, fib dms., 3 kilos or more kilo.		30.00	44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd	lb.	.0695	—
tanks, dlvd.	lb.	.0430	—
Formaldehyde, methanol-free (uninhibited), tanks, dlvd	lb.	.0375	—
Formic acid, 85%, cbys., c.l., works.	lb.	.1570	—
cbys., l.c.l., works	lb.	.1620	.1720
90%, cbys., c.l., works	lb.	.1625	—
cbys., l.c.l., works	lb.	.1675	.1775
Fringetree bark, bls	lb.	.65	.70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald	lb.	.23¼	—
dms., l.c.l., frt equald	lb.	.24¾	—
Fumaric acid in bags ½c. per lb.		less.	
Furfural, dms. c.l. works	lb.	.13	—
dms., l.c.l., works	lb.	.14	—
tanks, dlvd. E	lb.	.11½	—
tanks, dlvd. W	lb.	.12½	—
Furfuryl alcohol, cns., works	lb.	.28	—
dms., c.l., t.l., Newark, N. J.	lb.	.20½	—
dms., l.c.l., t.l., Newark, N. J	lb.	.21½	—
dms., c.l., t.l., Memphis, Tenn	lb.	.19	—
dms., l.c.l., t.l., Memphis, Tenn.	lb.	.20	—
tanks, Memphis, Tenn.	lb.	.175	—
Fusel oil, refd. dms., c.l., dlvd	lb.	.18	—
dms., l.c.l. dlvd.	lb.	.19½	—
tanks, dlvd.	lb.	.15½	—

G

G salt, bbls., frt. alld., 100% basis	lb.	.73	—
Gallic acid, NF VII, bbls., 1,000-lb. lots	lb.	2.00	—
bbls., smaller lots	lb.	2.02	2.22
Tech., bbls., 1,000-lb. lots	lb.	1.78	—
bbls., smaller lots	lb.	1.80	2.00
Gamma acid, dry grd., bbls., frt. alld	lb.	1.75	—
Gammapicoline (see g-picoline).			
Garlic oil, dom., bots.	oz.	4.75	6.05
Imp., bots.	oz.	4.50	5.00
Gaultheria oil (see Wintergreen oil).			
Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd	lb.	.55	—
150 AOAC test, bbls., c.l., dlvd.	lb.	.64	—
200 AOAC test, bbls., c.l., dlvd.	lb.	.70	—
225 AOAC test, bbls., c.l., dlvd.	lb.	.74	—
275 AOAC test, bbls., c.l., dlvd.	lb.	.82	—
Geisenium root, bls.	lb.	.30	.35
Gentian root, bls.	lb.	.24	—
Grd., bbls., bxs.	lb.	.30	—
Powd., bbls. bxs.	lb.	.30	—
Geraniol, extra cns., dms.	lb.	1.75	2.40
Soap grade, dms.	lb.	.90	1.75
Standard, cns., dms.	lb.	1.65	—
Synthetic, dms	lb	1.30	—
Geranium oil, Algerian, cns.	lb.	22.00	33.00
Bourbon, cns.	lb.	26.00	38.00
Geranium oil, Turkish (see Palmarosa oil).			
Geranyl acetate, cns.	lb.	1.90	3.70
Synthetic, dms	lb.	1.45	—
Ginger oil, dist., bots.	lb.	11.50	14.00
Ginger oleoresin, NF, from African root, bots	lb.	4.25	5.00
NF, from Jamaican root, bots.	lb	7.75	—
Ginger root, Cochin, bgs.	lb.	.28	—
Jamaican, No. 3, bgs.	lb.	.28	—
Nigerian, split, bgs	lb.	.32	—
Sierra Leone, bgs	lb.	.35	—
Glauber's salt (see Sodium sulfate).			
Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works	lb.	.20	—
dms., l.c.l., f.o.b. works	lb.	.21	—
tanks, f.o.b. works	lb.	.17	—
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd.	lb.	.18	—
131 jellygrams, bgs., c.l., same basis	lb.	.16½	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½	—
Glue, bone, extracted, dry bone, 191 jellygrams, bgs., c.l., same basis	lb.	.19½	—
553 jellygrams, bgs., c.l., same basis	lb.	.21	—

Which of these 3 products and services can you use from BECCO?

What's new in Metal Treatments and Etching?

Quite a few things. For example, there's the use of Becco Ammonium Persulfate in etching printed circuits. Seems the material works a lot better — at less cost — and with none of the hazards of the ferric chloride solutions conventionally used.

Then, there's the problem of pickling copper and brass. Lots of pickling agents will do this — only trouble is, you've got to paint or plate or do whatever you're going to do with the metal rather quickly. Or else. Or else it will tarnish or oxidize and you're in the pickle all over again.

Not so with Ammonium Persulfate. Cleans fine. Puts a mild etch on the surface, too, for better paint or plating bonding. More important, perhaps, is the fact that the metal resists retarnishing for up to two weeks. Ideas?

We hope so. What's more, we've got several booklets to help spur you on. They're free—use the coupon below to order.

- **No. 39 and 51—Surface Treatment of Metals with Peroxygen Compounds.**
- **No. 86 — Improving Properties of Copper and Brass Surfaces.**
- **No. 97 — Paddle Etching of Printed Circuits with Ammonium Persulfate.**
- **No. 99 — Tank Immersion Etching of Printed Circuits with Ammonium Persulfate.**
- **No. 102—Etching of Printed Circuits with Mercury Activated Persulfate.**

What's a PEROXYGEN?

Fact is, "peroxygen" is a word that Becco uses to indicate that we can tie oxygen onto just about anything.

How come? Well, years of experience in producing Hydrogen Peroxide has produced an affinity between Becco and oxygen — an affinity we have capitalized on to give you compounds that will provide a ready source of oxygen — wherever, however and whenever you need it.

We have a good number of such compounds on the shelves. Quite a few others are in development. Still others are merely in our minds, but we can begin drawing them out if you're interested.

We hope you are interested. But we'll never know—unless you fill in the coupon below and mail it to us. Why not?

Problems in handling Hydrogen Peroxide

?

Becco's Four-Fold Engineering Service Program—offered free—includes:

1. **Comprehensive survey of your facilities.**
2. **Specific proposal with recommendation of proved equipment and where it is obtainable.**
3. **Installation supervision by Becco.**
4. **Periodic inspection and permanent service.**

Can you use this free Becco help, based on more years of experience with bulk handling of H_2O_2 than any other manufacturer? Use the coupon to let us know.

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Dept. OPDR-E

Gentlemen:
Please send me the following free bulletins:

☐ 39 and 51 ☐ 86 ☐ 97 ☐ 102 ☐ 99

NAME_____
FIRM_____
ADDRESS_____
CITY_____
ZONE____ STATE_____

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161 East 42nd Street, New York 17, N. Y.
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Gentlemen:
Send me more information about Becco Peroxygen Chemicals.

NAME_____
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ADDRESS_____
CITY_____
ZONE____ STATE_____

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161 East 42nd Street, New York 17, N. Y.
Dept. OPDR-B

Gentlemen:
Please tell me more about your Four-Fold Engineering Service.

NAME_____
FIRM_____
ADDRESS_____
CITY_____
ZONE____ STATE_____

Glue, bone, green, 40 jellygrams, bgs., c.l., same basis lb. .18 - —
80 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½ - —
Glue, bone, green, 135 jellygrams, bgs., c.l., same basis lb. .17½ - —
164 jellygrams, bgs., c.l., same basis lb. .18½ - —
180 jellygrams, bgs., c.l., same basis lb. 19½ - —
200 jellygrams, bgs., c.l., same basis lb. .20½ - —
Bone glue, t.c.l., prices 2c higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .18 - —
95-149, bgs., c.l., dlvd lb. .19 - —
122-149, bgs., c.l., dlvd lb. 20½ - —
150-177 bgs., c.l., dlvd lb. 22½ - —
178-206 bgs., c.l., dlvd lb .25 - —
Glue, hide, 207-236, bgs., c.l., dlvd lb. .28 - —
237-266, bgs., c.l., dlvd lb 30½ - —
267-298 bgs., c.l., dlvd lb. 32½ - —
299-330, bgs., c.l., dlvd lb. 34½ - —
331-362 bgs., c.l., dlvd lb. 36½ - —
363-394 bgs., c.l., dlvd lb. .38 - —
Glue, hide, 395-427, bgs., c.l., dvld. lb. .40 - —
428-460 bgs., c.l., dlvd lb. .42 - —
461-494, bgs., c.l., dlvd lb. 44 - —
495-529 bgs., c.l., dlvd lb. .46 - —
Hide glue, t.c.l. prices 2c. higher.
l-Glutamic acid, 99½%, fib dms., 100-lb lots, frt alld lb 1.80 - —
fib dms. 25-lb lots, frt. alld lb 1.88 - —
l-Glutamine, bots., 1-9 kilo lots, kilo.150.00 - 300.00
Bots. 50-kilo lots kilo.100.00 - —
Bots. 500-kilo lots kilo. 75.00 - —
Glycerine, dom., nat. crude, saponification 88%, tanks, dlvd. lb. .1870- —
nat., crude, soapiye, 80%, tanks, dlvd lb. .17 - .17¼
nat. refd., USP, CP, 99%, dms., c.l., dlvd lb. .30⅝- —
dms., t.c.l., dlvd. lb. .31⅝- —
tanks, dlvd. lb. .29½- —
Glycerine dom. nat., refd., USP, CP, 96%, dms., c.l., dlvd lb. .30 - —
dms., t.c.l., dlvd. lb. .30¾- —
tanks dlvd lb. .28¼- —
nat. high gravity, dms., c.l., dlvd lb. .30¾- —
dms., t.c.l., dlvd. lb. .31½- —
tanks, dlvd. lb. .29 - —
Glycerine, dom., syn., dms., c.l., dlvd lb. .31 - —
dms., t.c.l., dlvd. lb. .31¾- —
tanks, dlvd. lb. .29¼- —
Imp. nat., crude, soaplye, 80%, c.l.f lb. .17½- —
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glycolic acid (see Hydroxyacetic acid).
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works lb. .40 - —
dms., t.c.l., same basis lb. .42 - —
tanks, same basis lb. .39 - —
Glyoxal, 30%, dms., c.l., works lb. .20½ - —
dms., t.c.l., works lb. .21¼- —
tanks, works lb. .18 - —
Golden seal root, NF, tested, bls. lb. 3.10 - —
Gramicidin, 1 to 5 kilos, f.o.b. works, gram. 4.25 - —
Grapefruit oil, dms lb. 3.00 - —
Graphite, amorp., powd., bgs., fib. dms., ex whse lb. .06 - .09½
Cryst., 88-90%, powd., bgs., fib. dms., ex whse lb. .19 - .21½
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .24½
95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse lb. .29 .31
No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Grease, white, choice all hog, tanks, dlvd lb. .08¾- —
Yellow, tanks, dlvd. lb. .05 - .05½
Grease oil, No. 1, dms., c.l. lb. .13¾- —
dms., t.c.l. lb. .14¾- .15¾
Extra winter, strained, dms., c.l. lb. .16¼- —
dms., t.c.l. lb. .17¼- .18¼
Prime, burning, dms., c.l. lb. .17¾- —
dms., t.c.l. lb. .18¾- .19¼

GREEN PIGMENTS
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls. lb. .40 —
Guaiacol, NF, cryst., dms., tins lb. 2.10 2.15
NF liq., cbys., dms. lb. 2.30 2.40
Guaiacwood oil, cns. lb. .65 .80
Guaiacol carbonate, NF VII, dms lb. 3.40 3.45
Guar gum, food grade, bgs., c.l. lb. .38 - —
bgs., 5,000 lbs or more lb. .39 - —
Indust., bgs., c.l. lb. .32 - —
Tech grade, bgs. lb. .30 .33

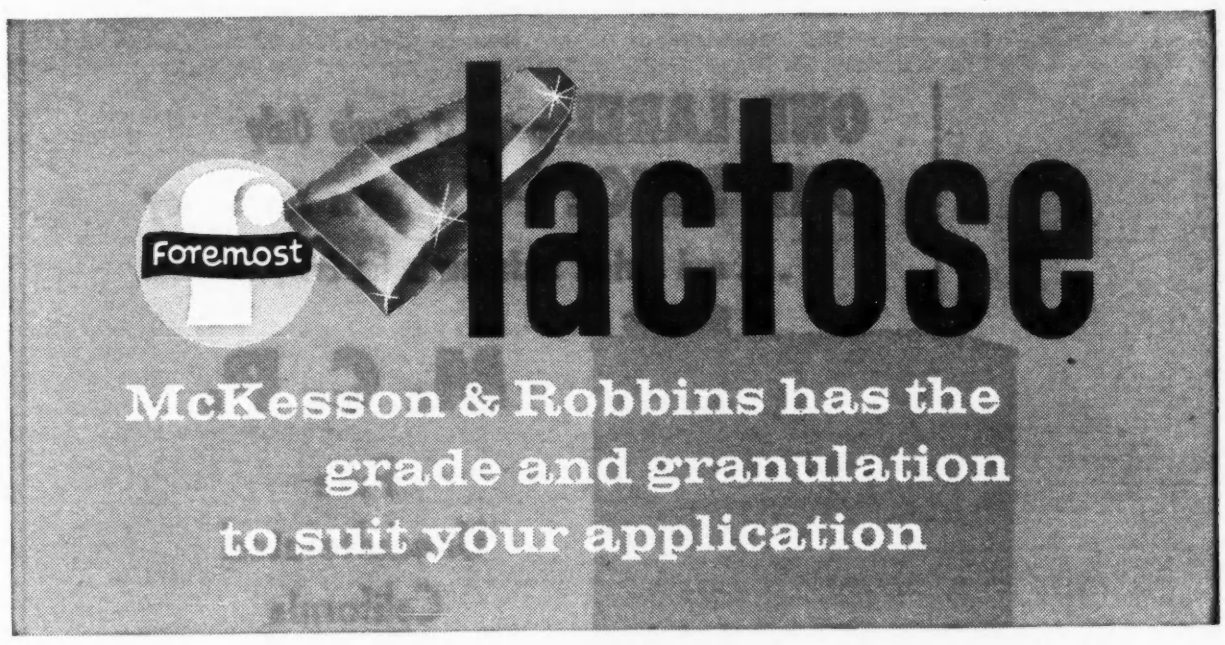
GUMS
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

H

H acid, dry, bbls, c.l., frt. alld., 100% basis lb. 1.00 - —
bbls., t.c.l., same basis lb. 1.05 - —
Hansa yellow 10 G, bbls, dlvd E. of Rockies lb 2.45 —
Hansa G yellow, pigment, bbls lb. 2.20 - —
Hawthorn berries, bgs. lb. .18 .20
Heliotropin 100-lb lots, dms. lb. 2.60 3.40
Hellebore root dom., green, bls lb. .70 .75
Helonias root bls. lb. 1.50 —
Hemlock oil, cns. lb. 2.55 3.00
Henbane leaves, bls lb. .40 - .45
Heptachlor dms., c.l., t.l., frt. alld., 100% basis lb. .96 - —
Heptane, indust., tankcars, New Jersey and New York gal. .20 - —
Houston Texas gal. .1625- —
Hesperidin, purif. 100-lb fib. dms., f.o.b., works lb. 8.93 - —
Hesperidin methylchalcone, bots., 50-lb lots, works lb.22.50 - —
bots. 5-lb. lots, works lb.23.00 - —
bots., 1-lb. lots, works lb.23.50 - —
Hexachlorophene, dms., 1,100 lbs. or more lb. 1.84 - —
dms. to 1,100 lbs. lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City lb. .233 - —
Hexamethylenetetramine, tech., bgs., 1,000-19,999-lb. lots, same basis lb. .243 - —
bgs., smaller lots, same basis lb. .253 - —
fib dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib dms., smaller lots, same basis lb. .233 - —
Hexamethylenetetramine, USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½- —
bgs. smaller lots, same basis lb. 43½- .48½
Hexane, industrial, tankcars, New Jersey and New York gal. .20 - —
Houston Texas gal. .16 - —
1-Hexanol, dms., c.l., works lb 35 - —
dms., t.c.l., works lb 35¾- —
tanks works lb 33 - —
Hexyl cinnamic aldehyde, dms. lb. 3.93 - 4.00
n-Hexyl methacrylate dms. c.l., works lb 75½- —
dms. t.c.l. works lb 76 —
Hexyl salicylate, dms. lb. 1.70 - 1.75
Hexylene glycol, dms., c.l., dlvd lb .17½- —
dms., t.c.l., dlvd. lb 19 - —
tanks, dlvd lb .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more dlvd lb.14.00 - —
dms. smaller lots, dlvd lb.14.50 - —
Homatropine hydrobromide, USP bots oz 3.25 - —
Homatropine methylbromide, USP, bots oz 3.25 - —
Hoofmeal, 17-18% ammonia bulk, c.l. Chicago unit-ton 6.75 - —
Horehound herb, bls lb .18 .20
Hydrastis (see Goldenseal)
Hydrazine hydrate, 85% ret. dms., works lb 1.35 1.55
100% ret dms., works lb 1.60 1.90
Hydriodic acid, purit., 47%, 2-cbys., f.o.b works lb 2.92 —
Hydroabietyl alcohol, tech, solid, dms., c.l., dlvd, zone 1 lb .29¼- —
dms., t.c.l., dlvd zone 1 lb. 29¾- .30¼
tanks, dlvd zone 1 lb 27¼- —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.

Hydrobromic acid, medicinal, 48%, cbys. frt equald lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride).
Hydrochloric acid, 18°, coys., c.l., works 100 lbs. 2.50 - —
cbys., t.c.l., dlvd. Metropolitan area 100 lbs. 2.90 - 3.05
tanks, works, frt. equald ton.28.00 - —
20°, cbys., c.l., works 100 lbs. 2.75 - —
cbys., t.c.l., dlvd. Metropolitan area 100 lbs 3.15 - —
tanks, works, frt. equald ton.30.00 - —
Hydrochloric acid, 22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys., t.c.l., dlvd. Metropolitan area 100 lbs. 3.65 - —
tanks, works, frt. equald ton.35.00 - —
Hydrochloric acid CP, USP, consumers, cbys., extra, c.l., works lb. .15¼- —
cbys., t.c.l., same basis lb. .17¼- .17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis, lb. .20¼- —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. 1.05 - 1.90
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.10 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pt. bots., f.o.b. works pt. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride).

Hydrofluoric acid, aqueous, 70%, 55-gal or 30-gal dms., c.l., t.l., dlvd 100 lbs 19.25 —
55-gal. dms., t.c.l., t.l.l., dlvd 100 lbs 20.75 —
20-gal. dms., c.l., t.l., dlvd 100 lbs.21.00 —
Hydrofluoric acid, aqueous, 70%, 20-gal., dms., t.c.l., t.l.l., dlvd 100 lbs.22.50 - —
tanks, works frt equald 100 lbs 13.40 —
Delivered prices apply to all states east of Arizona California Colorado Idaho Montana, Nevada, New Mexico Oregon Washington and Wyoming In those states add $2.70 per cwt for drum delivery
Hydrofluosilicic acid dms. works, 30% basis lb. .07 - —
Hydrofuramide dms., fib ctns., works lb 30 40
50-lb cyls., t.c.l., works lb 55 60
Hydrogen chloride anhyd., 50-lb. cyls. t.c.l works lb 45 —
Hydrogen cyanide liq., 98% tanks, works lb .14 —
Hydrogen fluoride, anhyd., cyls., dlvd E lb 30½ .32½
cyls., dlvd W lb 39 —
tanks works lb. 18 —
Hydrogen peroxide 35% dms., c.l., dlvd lb 202 —
dms., t.c.l., dlvd. lb 211 —
tanks, dlvd. lb. .1800- —



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Hydroquinone, photo grade, dms., 50-lbs. f.o.b works lb 1.10 - —
Tech., dms, c.l., dlvd lb .82½- —
dms, l.c.l. dlvd lb 84½- —
Hydroquinone monomethyl ether, dms., t.l. dlvd lb 2.59 - —
dms, t.t.l., dlvd lb 2.61 - —
Hydroxyacetic acid, tech., 70% dms. Philadelphia and Chicago lb .11 - —
tanks Belle W Va lb 073 —
Hydroxydronellol cns lb 4.85 5.75
Hydroxyethyl cellulose, all grades, 6lb dms 20,000 lb lots or more f.o.b shipping point lb .84 - —
fib dms, 2,000 to 19,999 lb lots, same basis lb .89 - —
fib dms, 100 to 1,999 lb lots, same basis lb .93 - —
fib. dms., smaller lots, same basis lb 1.03 - —
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots. oz. 7.75 - 8.50
Hyoscyamine sulfate, bots oz. 7.75 - 8.50
Hypophosphorous acid, purit., 50%. 10-cbys f.o.b works lb 1.95 —
NF 50%. 10-cbys., same basis lb 1.35 —

I

Ichthammol, NF, dms lb .75 1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.)
Indole, CP bots. lb 13.75 -15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd lb 4.50 - —
Inositol, 50-lb. dms., less than 1,000 lb., dlvd lb 4.75 - —
10 lb cns., 10-50 lbs. dlvd lb 5.00 - —
5 lb. bots., dlvd. lb 5.25 - —
Insect flowers (see Pyrethrum)
Iodine, crude, kgs. lb. 1.10 - —
Resub., USP, dms., f.o.b. works lb. 2.20 - 2.22
Iodochlorohydroquinolin, USP, dms. lb 3.60 - —
Iodoform, NF dms. 300-lbs., f.o.b works lb 4.90 - —
dms., 100-lbs., same basis lb 5.05 - —
a-Ionone, cns. lb 4.60 5.75
b-Ionone, cns. lb 4.15 6.15
Ipecac root, whole bgs. lb 8.00 8.50
Powd., bbls, hxs. lb 9.50 -10.00
Irish moss, bleached, prime, bls lb. .25 - .27
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .57 - —
bbls, l.c.l. ton lots same basis. lb. .58 - —
bbls., smaller lots, same basis lb. .59 - —
Dom., reg. bbls., c.l., dlvd E lb. .52 - —
Iron blue, alkali-resisting, dom., reg., bbls, l.c.l., ton lots, same basis lb. .53 - —
bbls, l.c.l., smaller lots, same basis lb. .54 - —
Imp., British, reg., bbls, c.l., dlvd. E lb. .48 - —
bbls., l.c.l., ton lots, same basis lb .49 - —
Iron blue, British, reg., bbls., l.c.l., smaller lots, same basis lb. .50 - —
Iron blue dlvd. prices 1c higher for Pacific Coast states: Wash., Ore., Cal., N M., Ariz., Mont., Wyo., Utah, Col and Nev
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs, l.c.l., works lb. .15 —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works lb .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05½- —
Iron oxide Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red nat., 75-85% ferric oxide, bgs., c.l., works lb. .08¼- —
bgs. l.c.l., works lb. .06½- —
Iron oxide Spanish red, bbls., c.l., ex dock lb. .05¾ Nom.
bbls, l.c.l., ex dock lb. .06 Nom
bbls., l.c.l., ex whse. New York lb .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs. l.c.l lb .023 .024
Iron oxide, yellow pure, light lemon shade bgs. c.l. works lb .12¼- —
other shades, same basis lb. .12 - .12½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb 27½- —
dms., l.c.l., same basis lb 29 - —
tanks, same basis lb .25 - —
Isoborneol cns. lb 1.44 1.80
Isobornyl acetate cns. lb 46 56
Isobornyl formate, dms lb. 1.15 - 1.20
Isobornyl propionate, dms lb. 1.20 - 1.25
Isobutyl acetate, perfume grade cns lb. .30 - .35
Isobutyl acetate, solvent grade, dms., c.l., dlvd E. of Rockies lb. .15¾- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Isobutylene, 99% tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., dlvd. lb. .28½- —
Tech., dms., c.l., dlvd. lb. .22 - —
dms., l.c.l., dlvd. lb. .23 - —
tanks, dlvd. lb. .19½- —
Isobutyric acid, dms., c.l., t.l., dlvd. lb .35 - —
dms., l.c.l., t.l., same basis lb. .36½- —
t.c. t.t., same basis lb .33 —
Isobutyronitrile, dms., c.l., dlvd. lb. .47½- —
dms., l.c.l., dlvd lb. .48½- —
tanks, dlvd. lb. .45 —
Isoeugenol cns. lb 3.40 4.25
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 - —
Isonicotinic acid, 100-lb fib. dms., works lb 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., t.c.l., dlvd. E. lb. .25 —
tanks, dlvd E lb. .21 —
Isopentane, com'l. grade, tanks, f.o.b. Tex refy gal. .16½- —
Isophorone, dms., c.l., dlvd lb. .24½- —
dms., l.c.l., dlvd lb. .25¼- —
tanks, dlvd. lb. .22½- —
Isophthalic acid, dms., c.l., works, frt equald lb. .18 —
dms. t.c.l., same basis lb. .19 —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms. c.l. dlvd. lb. .14 —
dms., t.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms., t.c.l., dlvd. gal. .68 - —
tanks, dlvd. gal. .42 - —
Isopropyl alcohol refd., 95%, c.l., dms., dlvd gal. .60 - —
dms., t.c.l., dlvd. gal. 70 - —
tanks, dlvd. gal. .44 - —
anhyd. c.l., dlvd. gal. .62 - —
dms., l.c.l., dlvd. gal. 72 - —
tanks, dlvd gal. .46 —
Isopropyl benzene (see Cumene)
Isopropyl ether, dms., c.l., dlvd lb. .09½- —
dms., l.c.l., dlvd. lb. .11 - —
tanks, dlvd lb. .07 —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l. t.l., works lb. 1.00 —
dms., t.c.l., works lb. 1.05 1.25
tanks, works lb. .99 —
Isopropylamine (see Mono, Di, or Tri-)
Isopropyl-N-phenyl carbamate, 450-lb fib dms. c.l., t.l., works lb. 75 —
450-lb fib dms., t.c.l., works lb. .80 .90
Isoquinoline, dms., works lb. 65 1.25
Itaconic acid, refd. bgs. c.l., f.o.b. works lb. .49½- —
bgs., t.c.l., same basis lb. .50½- —
Tech., bgs., c.l., same basis lb. .34½- —
bgs., t.c.l., same basis lb. .35½- —

J

J acid, paste, bbls., works, 100% basis lb 2.70 - —
Powd., bbls., same basis lb 2.75 - —
Jalap root, NF, bls. lb. 60 - —
NF, powd. bbls., bxs. lb 70 .75
Japan wax, cs. lb .29 .31
Juniper berries, bgs. lb .16 .17
Juniper berry oil, NF, bots. lb 2.90 3.75
Twice rectified, bots. lb 3.25 —
Juniper tar oil, NF, dms. lb. 42 .60
Juniper wood oil, tech., cns. lb. .38 .55

K

Kaolin (see also Clay, China).
Kaolin NF, powd., fib. dms lb. .10 - .12
NF colloidal 50-lb. bgs lb. 15½- .17½
Karaya gum, No 1, NF, powd., bls lb. 45 - .50
No. 2, powd., bbls. lb. .43 .45
No. 3, powd. bbls. lb. .37 .40
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 —
Kola nuts, bgs. lb. .11 - .13

L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125- —
Houston, Texas gal. .16 - —
Lacquer diluent, petroleum, 200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125- —
Houston, Texas gal. .16 —
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald lb. .1985- —
bbls., dms., 20 or more, frt. equald lb. .2035- —
bbls., dms., 5 to 19, frt. equald. lb. .2085- —
bbls., dms., 1 to 4, frt. equald. lb. .2135- —
Lactic acid, edible, 80%, bbls., c.l., dms., frt. equald lb. .3335- —
bbls., dms., 20 or more, frt equald lb. .3385- —
Lactic acid edible, 80% bbls., dms., 5 to 19, frt. equald lb. .3435- —
bbls. dms., 1 to 4, frt equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls., 5 to 19, works lb. .2840- —
bbls., 1 to 4, works lb. .2890- —
80%, bbls., c.l., works lb. .4625- —
bbls, 5 to 19, works lb. .4725- —
bbls, 1 to 4, works lb. .4775- —
Lactic acid, tech., 44%, bbls., c.l., works 100 lbs. 12.45 - —
bbls., t.c.l., works 100 lbs 12.85 - —
USP 85% cbys. lb .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb lots, frt. equald lb. .14 - —
bgs., 6,000-lb lots, frt equald lb. .14½- —
bgs., 2,000-lb lots, frt equald lb. 14¾- —
bgs., 200-lb lots, frt equald lb 15¼- —
Edible lactose in fib dms. ½c higher.
Lactose, ferment, grade, bgs., c.l., works lb. 08½- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots frt. equald lb. 22¼- —
200-1,880-lb. lots, frt. equald lb. 22¾- —
USP lactose in bags ½c to 1c lower
Lactose, USP spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs. t.t.l. frt equald lb 19 19¾
Lady's slipper root, bls. lb. 3.00 3.50

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137 Boston Post Road, Cos Cob, Conn.

Lamp black, bgs., c.l., works ... lb. .16 - .45
Lanolin, USP, anhyd., 400-lb dms., works lb. .24 - .30
USP, anhyd., cosmetic, 400-lb. dms., works lb. .26 .30
USP hydrous, 400-lb dms., works. lb. .20 —
Lard, cash, dms., Chicago ..... lb. .1020- —
Lard oil (see Grease oil).
Larkspur seed, bgs. ..... lb. .55 - —
Laurel leaf oil, dms, cns..... lb 9.75 - 12.50
Laurent's acid, bbls ..... lb 70 —
Laurie acid, pure, dms..... lb. .32¼- .34¾
tanks ..... lb. .29¾- —
Lauryl alcohol, bots ..... lb 2.00 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb .65½- —
dms., t.t., works lb .66 —
Lavandin oil, 22-24%, dms..... lb. 1.08 - 1.10
Abrial, dms. ..... lb. 1.12 - —
Lavender flowers, medium, bls lb. .55 .60
Ord., bls. ..... lb .20 .25
Select., bls ..... lb 90 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb 1.85 4.00
40-42% ester, cns lb. 5.00 7.75
Spike, Spanish, cns ..... lb. 1.75 - 2.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. ..... lb. .25½- —
gran, bbls. ..... lb. .26½- —
powd, bbls ..... lb. .26½- —
Lead arsenate acid powder, dealers, 3-50-lb bgs or any quantity frt alld on $150 or more lb .30½- —
1-lb bgs, same basis lb 47 —
Lead, blue, basic sulfate, bbls., c.l., shipt point, frt. alld lb .17 - —
bbls, l.c.l. same basis lb .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride dms ..... lb. .52 - —
Lead iodide NF V jars ..... lb 3.82 - —
Lead linoleate, fused, 26.5% Pb, dms. lb .38 - —
Lead metal prime, pigs, New York lb. .12 —
St Louis ..... lb. .1180- —
Lead monosilicate, bgs., c.l., works, frt equald lb. .1385- —
bgs, l.c.l., same basis lb. .1485- —
Lead naphthenate, liq, 16% Pb., dms., dlvd lb. .19½- —
24% Pb, dms., dlvd lb. .24¼- —
Solid, 47% Pb., dms, dlvd lb .31¾- —
Lead nitrate, bbls lb .24¼- .26¾
Lead orthosilicate, gel, 50-60% PbO, dms works lb. .29¾ .34¼
Lead peroxide, tech powd, bbls lb. .45 .50
Lead phthalate dibasic dms, works, lb. .41 —
Lead, red 95% Pb_3O_4 or less, bbls., c.l. works, frt equald, lb. .1475- —
bbls, l.c.l. same basis lb. .1575- —
Lead, red, 97% Pb_3O_4, bbls., c.l., same basis lb. .1495- —
bbls, l.c.l., same basis lb. .1595- —
Lead, red, 98% Pb_3O_4, bbls., c.l., same basis lb. .1510- —
bbls, l.c.l. same basis lb. .1610- —
Lead, resinate, precip., 23%Pb, dms., lb. .49 - —
Lead salicylate, normal dms, works lb. .46 —
Lead silicate (see Lead, white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs point, frt alld lb. .20 - —
bgs, l.c.l., same basis lb .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq, 16% Pb, dms lb. 17¼- —
24% Pb, dms ..... lb. .21¼- —
Solid, 30% Pb, dms ..... lb. .26¾- —
Lead, white, basic carbonate, bgs., c.l. shipt pt., frt. alld lb. .18 - —
bgs, l.c.l. same basis lb. .19 - —
basic silicate bgs c.l. shipt, pt frt alld lb. .16½- —
Lead, white, basic silicate, bgs., c.l., shipt, pt., frt. alld lb. .17 - —
bgs, l.c.l. same basis lb. .18 - —
Lecithin, edible, tech, bleached, non-ret dms., c.l. works, lb. .14 - .15
non-ret dms., l.c.l. same basis lb. .15 - .16
Lecithin, edible, tech., unbleached, non-ret dms, c.l., same basis lb. .13 - .14
non-ret dms, l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex 100-lb. package, works lb. 6.45 - —
Lemon oil, USP, Calif., cns, dms lb 1.25 1.50
Messina cns lb 3.25 4.00
Lemongrass oil, cns., dms lb. 2.40 - —
dl-Leucine, dms., 1 kilo, works kilo. 50.00 - —
Licorice root gran bls lb 13 —
Powd, bls lb 15 .16
Whole bls. lb 09 .10
Lignaloe wood oil, Mexican cns lb 2.75 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).
Lilac oil lb. 1,500.00
Lime, chemical (quicklime), bulk, c.l. 50,000 lbs. works, E ton. 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton. 13.25 - —
spray, bgs., c.l. same basis ton. 18.25 - —
For New York delivery add $6.29 freight charge
Lime oil, dist., Mexican, cns..... lb. 5.35 - 5.60
West Indian, cns..... lb. 5.00 - 5.60
Expressed, West Indian, cns lb 7.75 8.75
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool ex bois de rose oil dms lb. 2.45 4.25
Syn, 98-100% dms., works lb 2.40 2.75
Linalyl acetate ex bois de rose 90-92%, dms lb. 2.65 4.50
96-98% dms lb 3.25 —
Syn., 98-100%, dms., works lb. 2.75 - —
Lindane, 25% formulation to distributors dms, frt. alld, lb. 1.35 - 1.50
Lindane, tech., to formulators, 250-lb dms, 5,000 lbs, dlvd, lb 2.13 - —
100-lb dms., 5,000-lbs. dlvd lb 2.15 - —
250-lb dms, less than 5,000-lbs., dlvd lb 2.18 - —
100-lb dms, less than 5,000-lbs dlvd lb 2.20 - —
Linden flowers, with leaves bls lb. .35 - .40
Without leaves bls lb. .42 - .45
Linseed meal, expeller, 32% bulk, Minneapolis, mills ton. 58.50 - —
Extracted 34% bulk, same basis. ton. 52.50 - —
Linseed oil, raw, dms., c.l., New York lb. .1620- —
dms., l.c.l., New York ..... lb. .1710- .1760
tanks, f.o.b. Minneapolis..... lb. .1260- —
tanks, New York ..... lb. .1372- —
tankwagon, New York ..... lb. .1432- —
Boiled linseed oil, .006c, per lb. higher.
Linseed oil, acid, dist., dms ... lb. .1980- —
Water white, dms. ..... lb. .2280- —
Litharge, coml, powd, bbls., c.l., works, frt equald lb. .1425- —
bbls, l.c.l, same basis lb. .1525- —
Lithium aluminum hydride, lump, dms., works lb. 33.00 39.00
Lithium benzoate, dms. ..... lb. 1.65 - 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald lb. 2.60 - —
Lithium carbonate, NF, dms., c.l., t.l., dlvd lb. 1.29½- —
dms, ton lots to t.l., dlvd lb 1.30 1.30½
Tech., dms, c.l., frt. alld lb. .67 - —
dms, t.l., same basis lb. .73 - —
dms., ton lots, same basis lb. .76 - —
dms, smaller lots, f.o.b., plant, lb. .81 - —
Lithium chloride, CP, anhyd., dms., ton lots lb. 1.23½- —
Tech, anhyd., dms., c.l., t.l., dlvd, or works frt alld lb. .87 - —
dms, l.c.l. same basis lb. .88 - .92
Lithium citrate, NF, dms, ton lots, lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd lb. 1.75 - —
bbls., ton lots and more, dlvd lb. 1.85 - —
bbls., less ton lots, dlvd ..... lb. 1.90 - —
Lithium hydride, powd., dms., 500-lbs lots or more, works, lb. 9.50 - —
Lithium hydroxide, monohydrate, dms, c.l. t.l., frt. alld lb. .72 - —
dms., l.c.l. frt alld. lb. .73 - —
Lithium manganite, dms, works lb. .95 1.05
Lithium nitrate, tech, dms., 100-lb lots lb. 1.15 1.25
Lithium salicylate, dms. lb. 1.60 1.70
Lithium silicate, dms., works lb. 1.10 1.20
Lithium stearate, dms, c.l., works, lb. .47½- —
dms, ton lots, works ..... lb. .48½- —
dms., less-ton lots, works..... lb. .53½- —
Lithium sulfate, dms., 100-lb. lots, lb. 1.15 1.25
Lithium titanate, dms., works lb. 1.15 1.25
Lithol red toner, barium, bbls., works lb. .88 —
Lithol-rubine red toner, pure, bbls., works lb. 1.50 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone ord, bgs., c.l., dlvd E. lb. .08¾- —
bgs., l.c.l., dlvd, E ..... lb. .09½- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 - —
bgs., l.c.l., dlvd ..... lb. .12 - —
Lobelia herb, bls..... lb. .95 - 1.10
Lobeline sulfate, bots., 50-oz. lots, works oz. 30.00 - —
Locust bean gum, powd., bgs. lb. .35 - .40
Lycododium, cs. ..... lb. 2.50 - 3.00
l-Lysine monohydrochloride, 25-lb. dms lb. 4.95 - —

M

Mace, Siauw, No. 1, bls. ..... lb. 1.58 - —
No. 2, whole, bls. ..... lb. 1.40 - —
siftings, bls ..... lb. 1.35 - —
Mace oil, dist., cns., dms ..... lb. 9.00 - 11.00
Magnesia, calcined, tech., bgs., ctns., frt equald lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt equald lb .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs., l.c.l., frt. equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points

Magnesia, calcined, tech., heavy, 85% bgs. c.l., f.o.b Luning, Nev ton. 39.50 - —
91%, bgs., c.l., same basis. ton. 49.50 —
95%, bgs., c.l, same basis ton 59.00 - —
USP, light, bgs. ..... lb. .36½- .37½
USP, heavy, bgs ..... lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt equald ton. 86.25 - —
Chemical grade, deadburnt, standard grain, bulk, c.l., Chewelah Wash ton 46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb. 1.13 - —
Magnesium carbonate, tech., bgs., c.l., frt equald lb. .11 —
bgs., t.l., frt. equald lb. .11½ —
bgs., l.c.l. frt equald lb .13½ .14
Magnesium carbonate, USP, bgs., c.l. frt equald lb. .13½ —
bgs., t.l., frt equald lb .14 —
bgs., l.c.l. frt equald lb .15 .16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l. works lb. .12¾- —
dms, l.c.l., works lb .14 .15
Magnesium chloride hydrous, 99%, flake, bgs., c.l., works ton. 60.00 —
bgs., l.c.l., works ..... ton. 75.00 - 100.00

One oil guarantees full lemon flavor every single time
It's Exchange Lemon Oil U.S.P., California Cold Pressed. Here is lemon flavor as it should be—full of the aromatic pungency of California's best lemons. And it's uniform—the same, batch after batch. Only the Sunkist Growers, with the world's largest stocks of coastal, highland and desert-grown lemons at their command, could produce an oil with such consistent flavor balance.
Always look for "Exchange" on the tamper-proof container seal—your guarantee it was pressed and packed by the Sunkist Growers. You can depend on it.
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Products Sales Department, Ontario, California
Exchange Lemon Oil is distributed in the U.S. by Dodge & Olcott, Inc.; Fritzsche Brothers, Inc.; Ungerer & Co.
Exchange

Magnesium Gluconate—Methyl Cellulose

Magnesium gluconate 100-lb dm., f.o.b works E lb 1.42 - —
Magnesium hydroxide, NF powd., dms., 500-lbs or more, f.o.b works lb .24½- .25½
Magnesium lauryl sulfate dms., c.l., frt alld lb .22½ - —
dms., l.t.l., frt alld lb .23½ - —
tanks, frt alld. lb .21½ - —
Magnesium metal, 99.8%, ingots, 10,000-lb lots or more, works lb .36 - —
pigs, 10,000-lb lots or more, works lb .35¼ - —
sticks, cs., works, frt alld on carlots lb .59 - —
Magnesium nitrate, cryst., dms., works lb .29 - —
Magnesium oxide (see Magnesia calcined).
Magnesium phosphate, tribasic, NF, bbls lb .75 - —
Magnesium silicate (see Talc)
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs 2.15 —
bgs. l.c.l., works 100 lbs 2.90 3.15
USP, cryst., bgs., c.l., works, 100 lbs 2.35 - —
bgs., l.c.l., 5,000 lbs., 1 withdrawal 100 lbs 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —

Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb .38 - —
fib. dms., 1,000-lb. lots lb. .40 - —
fib. dms., 100-lb. lots lb. .45 - —
Bulky and super grades of magnesium trisicilate 7c. per lb. higher.
Malachite green, straight, PTA, bbls., works lb 5.30 - —
Malathion, dms., c.l., works lb .89 —
dms., l.c.l., works lb .92 1.01
Maleic acid, cryst., powd., dms lb. 37¼ - —
Maleic anhydride, dms., c.l., frt equald lb. .24 —
dms., l.c.l., frt. equald lb. 25½- —
tanks, frt equald lb 22½ —
Maleic anhydride in bags ½c. per lb less.
Malic acid, tech., dms lb .50 —
Mandelic acid, NF, dms., 1,000-lb lots lb 2.35 —
dms., smaller lots lb 2.40 2.50
Mandrake root, bls. lb. .45 - —
Manganese acetate, dms., dlvd lb .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb lots, works lb. .21¾- —
smaller lots, works lb. .23½- —

Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton.148.00 - —
40,000 to 99,999-lb. lots, paper bgs., same basis ton.144.50 - —
40,000 to 99,999-lb. lots, dms. same basis ton.152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .35¾- —
Solid, precip., 8.2% Mn. bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd. E lb. .34½- —
dms., ton lots, dlvd. E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¾- —
Manganese resinate, fused, 3½% Mn. dms lb .29¼- —
Precip., 6½-7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd., S., E ton.86.50 - —
bgs., l.c.l., dlvd. S., E ton.93.50 - —
Manganese tallate, 6%, dms. lb. .26½- —
Manila copal gum, C, bgs. lb. .35 - .39
DBB, bgs. lb. .25 - .28
DK, dust, bgs. lb. .14 Nom.
MA, soft, bgs. lb. .20 - .24
WS, bgs lb. No stocks.
Mannitol, com'l. fib dms., ton lots, works lb. .60 - —
fib. dms., to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms. lb. .04¼- .05

MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .26½- —
bgs., l.c.l., works lb. .28 - —
Menadione, USP bots. gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf lb. .06¼- —
Menthol, nat., USP, Brazilian, large crystals, cs lb. 8.75 - 9.00
Nat., USP, Brazilian, regular crystals, cs lb. 8.60 - 8.85
Japanese, cs. lb. 10.50 -12.00
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs., fib. dms., less ton lots, same basis lb. .48 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld lb. .54 - —
bgs., fib. dms., less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b works lb 4.03 - —
USP, gran or powd., 50-lb. dm., 100 lbs., f.o.b. works lb. 3.78 - —
Mercuric cyanide, NF VIII, powd., fib dms lb. 5.84 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works lb. 6.97 - —
Mercuric oxide, red, NF IX 50-lb. dm., 100 lbs. f.o.b works, lb. 4.72 - —
tech., 50-lb dm. 100 lbs., same basis lb. 4.52 - —
Mercuric oxide, yellow, NF 50-lb. dm. 100 lbs., same basis, lb 4.89 - —
tech., dms. 100 lbs lb 4.35 - —
25-lb. fib dm lb. 4.38 - —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm. f.o.b works lb. 8.22 - —
Mercury, ammoniated (see White precipitate USP XV).
Mercury metal 76 lbs. per flask, net-flask 209.00 -212.00
Mesityl oxide dms., c.l., dlvd lb .15 —
dms. l.c.l., dlvd. lb. .16½- —
tanks, dlvd lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid dms. works lb .57 .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid glacial 98% dms. truckloads frt equald lb .42½- —
dms. smaller lots, frt equald, lb. .43 .75
tanks works frt equald lb. .40 —
tanks frt alld gal. .85 —
Methanol, nat, denaturing grade, Syn., zone 1, dms., c.l., or t.l. min. dlvd gal. .51½- —
dms. l.c.l., dlvd gal. .61½- —
tankwagon, 2,000-4,000 gal. lots, dlvd Metropolitan area gal. .35 - —
tankwagon, 4,000 gal min., dlvd gal. .30 - —
tankwagon, 4,000 gal min., f.o.b terminal gal. .29 - —
Methanol, syn., zone 2, dms. c.l., or t.l. min frt alld or dlvd. gal. .55½- —
dms. l.c.l., works gal. .65½- —
tankwagon, 2,000-4,000 gal. lots min., dlvd., Metropolitan area gal. .39 - —
tanks, 4,000 gal. min., dlvd. gal .34 —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt equald lb 27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt alld. lb 1.10 - —
dms., l.t.l., same basis lb 1.16 - —
dl-Methionine, fib dms., frt. alld., 50-lb or more lb 3.50 - —
Feed grade, 98% fib dms. same basis lb. 1.43 - —
Methoxychlor, 50% wettable powder, dealers, dms. cs lb. .66 - —
Methyl abietate, non-ret dms., c.l., dlvd zone 1 lb. .21½- —
non-ret dms., l.c.l., same basis lb. .22 .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis, lb. .24 .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat. dms., l.c.l., E of Miss., frt alld gal. .62½- —
Methyl acetone, syn., dms., c.l., frt, alld E gal. .66 - —
Methyl acetone, syn., dms., l.c.l., frt. alld. E gal. .76 - —
tanks frt alld. E. gal. .51 —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .36¼- —
dms, l.t.l., dlvd lb. .35¼- —
tanks, dlvd. lb. .32¼- —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., dlvd. E. lb. .18½- —
tanks, dlvd. E. lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works lb. 1.99¼- —
N-Methylaniline, tech., tanks, frt. alld lb. .60 - —
Methylanthranilate, cns. lb. 2.25 - 2.45
Methyl benzoate, cns., dms. lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .72
on 100 lbs lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .83 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt. alld on 100 lbs lb. 1.05 - —
Methyl cellulose, standard vis. (15,-400 cps.) 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb. bgs., 2,000-lb lots and more, same basis lb. .76 —
50-lb. bgs., smaller lots, frt. alld.

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If methanol is a basic material in your production, you will find Reichhold a dependable source of supply. This very useful solvent and versatile chemical intermediate is one of 14 basic chemicals delivered fast by RCI from an expanding network of plants and warehouses.

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Hydrochloric Acid • Formaldehyde • Phthalic Anhydride
Maleic Anhydride • Ortho-Phenylphenol • Sodium Sulfite
Pentaerythritol • Pentachlorophenol • Sodium Pentachlorophenate
Sulfuric Acid • Methanol

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METHANOL

Methyl chloride, indust., cyls., frt. equald	lb.	.22¼	—
tanks, multi-unit, same basis	lb.	.16¼	—
tanks, single unit, same basis	lb.	.12¼	—
Methyl chloride, refrigerator mfrs., cyls., dlvd	lb.	.48¼	—
Other consumers or service men, cyls., dlvd	lb.	.67¼	—
Methyl chloroform (see 1,1,1-Trichloroethane).			
Methyl cinnamate, cns	lb.	1.55	1.80
Methyl ethyl ketone, dms., c.l., dlvd	lb.	.15	—
dms., t.c.l., dlvd	lb.	.16½	—
tanks, dlvd	lb.	.12½	—
2-Methyl-5-ethyl pyridine, dms., c.l., works	lb.	.45	—
dms., t.c.l., works	lb.	.45¾	—
tanks, works	lb.	.43	—
Methyl formate, refd., dms	lb.	.35	.40
Tech., non-ret. dms., any quantity, works	lb.	.10	—
tanks, works	lb.	.07	—
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works	lb.	.21	—
100-lb. multiwall paper bgs., t.l., min 23,000 lbs., works	lb.	.21½	—
100-lb multiwall paper bgs., t.l. works	lb.	.23	—
Methyl heptin carbonate, bots	lb.	27.75	31.00
Methyl p-hydroxybenzoate, fib dms.	lb.	1.90	2.00
Methyl ionone, standard, cns. dms.	lb.	3.40	3.85
Methyl isoamyl ketone, dms., c.l., dlvd	lb.	.20	—
dms., t.c.l., dlvd.	lb.	.20½	—
tanks, dlvd.	lb.	.17½	—
Methyl isobutyl carbinol (see Methyl amyl alcohol).			
Methyl isobutyl ketone, dms., c.l., dlvd	lb.	.17	—
dms., t.c.l., dlvd	lb.	.18¼	—
tanks, dlvd	lb.	.14½	—
Methyl methacrylate, dms., c.l., t.l., frt. equald. with Belle, W. Va	lb.	.31	—
dms., smaller lots, same basis	lb.	.31½	—
tanks, same basis	lb.	.29	—
Methyl naphthyl ketone, cryst., cns	lb.	2.45	4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).			
Methyl parathion, tech., 80%, dms., frt. alld. E	lb.	.84	—
Methyl parathion prices 2c. per lb. higher in West.			
Methyl roseaniline chloride, NF., 5-lb. fib. dms	lb.	6.90	—
Methyl salicylate, dms., t.l., frt. alld	lb.	.60¼	—
dms., t.c.l., same basis	lb.	.62½	.67½
Methyl testosterone, USP, 100-gram bots	gram.	No Prices.	
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works	lb.	1.32	—
5-39 dm. lots, same basis	lb.	1.37	—
tanks, same basis	lb.	1.27	—
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies	lb.	2.80	—
Tungstated, PTMA, bbls., same basis	lb.	4.35	—
Methyl violet prices 1c. higher W. of Rockies.			
Methylene blue, fib, dms., 100-lb. lots, frt. adjusted	lb.	4.67	—
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd	lb.	.13¼	—
dms., t.c.l., t.l., dlvd	lb.	.15¾	—
tanks, 4,000-gal. min., dlvd	lb.	.12¼	—
tanktrucks, 1,000-gal min., dlvd.	lb.	.13¼	—
b-Methylnaphthalene, 32°C., m.p., dms., works	lb.	.90	—
Methylpentanediol (see Hexylene glycol).			
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).			
Methylthionine chloride (see Methylene blue).			
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works	lb.	.04	—
roofing, 20 to 80 mesh, works	lb.	.03	—
wet-grd., biotite, bgs., c.l., works, frt. alld. E	lb.	.06½	—
bgs., t.c.l., ex-whse.	lb.	.07¼	—
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E.	lb.	.08¼	—
bgs., t.c.l., ex-whse or freight alld. E	lb.	.09	—
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld. E	lb.	.08	—
bgs., t.c.l., ex-whse. or frt. alld. E	lb.	.08¾	—
wallpaper, bgs., c.l., works, frt. alld. E	lb.	.08¾	—
bgs., ex-whse. or frt. alld. E.	lb.	.09	—
white, 5-10 microns, bgs., c.l., works, frt. alld. E	lb.	.08¼	—
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.			
Microcrystalline wax, petroleum, coating grades, tankcars, works	lb.	.10	.11
laminating grades, tankcars, works	lb.	.11	.13
Mineral black, bgs., works	lb.	.0160	.0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy	gal.	.65	—
50-65 vis. non-ret. dms., t.c.l., basis	gal.	.70	—
tankcars, refy.	gal.	.49	—
Mineral oil, white, tech., 65-75 vis., non-ret. dms., c.l., same basis	gal.	.65	—
non-ret. dms., t.c.l., same basis	gal.	.70	—
tankcars, refy.	gal.	.49	—
NF, 80-90% vis., non-ret. dms., c.l., same basis	gal.	.66	—
non-ret. dms., t.c.l., same basis	gal.	.71	—
tankcars, refy.	gal.	.50	—
Mineral oil, white, NF, 135-138 vis., non-ret. dms., c.l., same basis	gal.	.72	—
Mineral oil, white, NF, 135-138 vis., non-ret. dms., t.c.l., same basis	gal.	.77	—
tankcars, refy.	gal.	.56	—
Mineral oil, white, NF, 145-155 vis., S non-ret. dms., c.l., same basis	gal.	.78	—
non-ret. dms., t.c.l., same basis	gal.	.83	—
tankcars, refy.	gal.	.62	—
Mineral oil, white, USP, 180-190 vis., non-ret. dms., c.l., same basis	gal.	.80½	—
non-ret. dms., t.c.l., same basis	gal.	.85½	—
tankcars, refy.	gal.	.64½	—
Mineral oil, white, USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy	gal.	.82¼	—
non-ret. dms., t.c.l.	gal.	.87½	—
tankcars, refy	gal.	.66½	—
Mineral oil, white, USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy	gal.	.87½	—
non-ret. dms., t.c.l.	gal.	.92½	—
tankcars, refy.	gal.	.71¼	—

(For f.o.b N. Y. add 2c. for tankcars; 3c. for c.l., and 5c. for t.c.l. non-ret. dms.).

Mineral orange, American, bbls., c.l., works	lb.	.17	—
bbls., c.l., same basis	lb.	.18	—
Mineral spirits, petroleum, odorless, tankcars, New Jersey	gal.	.29	—
New York	gal.	.305	—
Houston, Texas	gal.	.25	—
regular, tankcars, New Jersey and New York	gal.	.18	—
Group 3	gal.	.12875	—
Houston, Texas	gal.	.145	—
Mineral spirits, 140 F, flash, New York, New Jersey at terminal	gal.	.205	—
Houston, Texas	gal.	.17	—
Mink oil, dms.	lb.	2.75	—
Mirbane oil (see Nitrobenzene).			
MNPT maroon toner, kgs., c.l., works	lb.	6.30	—
Molasses, blackstrap, feed grade, tanks, New Orleans	gal.	.12½	.13
tanks, New York	gal.	.14	.14½
Molybdated orange, bbls.	lb.	.49	—
Molybdenum metal, powd., 80 or 200 mesh, ctns., works	kilo	7.84	—
325 mesh, ctns., works	kilo	9.13	—
Molybdenum trioxide, purif., dms., works	lb.	1.15	—
Tech., chemical, dms., works, basis Mo. content	lb.	1.48	—
Tech., metallurgical, dms., works, basis Mo. content	lb.	1.47	—
Molybdic acid, 85%, dms., works.	lb.	1.05	1.15
Monoallylamine, dms., c.l., dlvd	lb.	.965	—
dms., c.l., dlvd.	lb.	.995	—
tanks, dlvd.	lb.	.96	—
Monobutylamine, dms., c.l., dlvd. E. of Rockies	lb.	.57½	—
dms., t.c.l., same basis	lb.	.59	—
tanks, same basis	lb.	.55	—
Mono-tert-butyl-m-cresol, dms., c.l., works	lb.	.53	—
dms., t.c.l., works	lb.	.56	—
tanks, works	lb.	.54	—
Monochloracetic acid, purif. (see Chloroacetic acid, mono).			
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E	lb.	.10½	—
dms., t.c.l., same basis	lb.	.11½	—
tanks, same basis	lb.	.08¾	—
Monoethanolamine, dms., c.l., dlvd. E	lb.	.27½	—
dms., t.c.l., same basis	lb.	.29	—
tanks, same basis	lb.	.25	—
Monoethylalphanaphthylamine (see			
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis	lb.	.38½	—
dms., t.c.l., dlvd. E., 100% basis.	lb.	.40	—
tanks, dlvd. E. 100% basis	lb.	.35	—
Monoethylaniline (see N-Ethylaniline).			
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).			
Monoisopropanolamine, dms., c.l., dlvd. E	lb.	.27½	—
dms., t.c.l., same basis	lb.	.29	—
tanks, same basis	lb.	.25	—
Monoisopropylamine, anhyd., dms., c.l., dlvd	lb.	.33½	—
dms., t.c.l., same basis	lb.	.35	—
tanks, same basis	lb.	.31	—
Monomethylamine, anhyd., cyls., t.c.l., frt. equald., 100% basis	lb.	.30	—
tanks, 100% basis	lb.	.26	—
30-35% soln., dms., c.l., frt. equald., 100% basis	lb.	.36	—
Monomethylamine, 30-35% soln., dms., t.c.l., frt equald. 100% basis	lb.	.36½	—
tanks, frt. equald., 100% basis	lb.	.26	—
40% soln., dms., frt. equald., 100% basis	lb.	.33	—
dms., t.c.l., frt. equald., 100% basis	lb	33½	—
tanks, frt. equald, 100% basis.lb		26	—
Monopentaerythritol, tech., bgs., c.l., dlvd. E	lb.	.31	—
bgs., t.c.l., dlvd. E	lb.	.33	—
Monopotassium glutamate, dms., 1,000-lb lots, frt alld	lb	3.05	—
dms., 100-lb lots, same basis	lb	3.25	—
Monosodium glutamate, dms., dlvd.	lb.	1.07	1.15
Monosodium phosphate (see sodium phosphate, monobasic).			
Montan wax, Calif., refd., bgs	lb.	.27	.28
Imp., crude, Bohemian, bgs	lb.	.25	.28
German, bgs.	lb.	.25	.28
Morphine, cns., 100-oz., f.o.b. works	oz.	12.35	—
Morphine hydrobromide, cns., 100-oz., f.o.b. works	oz.	9.90	—
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works	oz.	9.90	—

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Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz 9.90 - —
Morpholine, dms., c.l., dlvd. E lb .55¼- —
dms., l.c.l., dlvd. E lb .56¼- —
tanks, dlvd E lb .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn. ambrette, fib dms., 100-lb lots lb 4.40 4.90
cns., 25-lb lots lb 4.50 5.00
Ketone, fib dms., 100-lb lots lb 4.60 5.10
cns., 25-lb lots lb 4.70 5.20
Xylol, fib dms., 100-lb lots lb 1.26 —
cns., 25-lb lots lb 1.40 —
Mustard seed, Danish yellow, bgs. lb. .12 - —
Montana yellow, bgs. lb 10½- —
Oriental, bgs. lb 08 —
Mustard oil, syn., bots. lb 1.60 1.85
Myristic acid, bgs. lb. .25¼- .27¾
tanks lb. .24¼- —
Myrrh gum, cs lb 65 75

N

Naphtha, high solvency (see Solvent naphtha, petroleum)
Naphtha, petroleum, cleaner's (see Cleaner's naphtha)
Naphtha, VM&P, petroleum, tank-cars, New Jersey and New York gal. .19 - —
Group 3 gal. 13875- —
Houston, Texas gal. 155 —
Naphthalene, crude, dom., 78°, tanks, frt. equald lb. lb —
imp., 78° bbs., bgs., cns. lb 09½ Nom.
Refd., in bbl., bgs., frt. equald lb. 13½ —
tanks, same basis lb. 10¾ —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls, c.l. same basis, lb 15½- —
cs. 50 lbs, c.l. same basis, lb 15¾- —
1-lb pkgs, c.l. same basis, lb 18½- —
a-Naphthol, dms, frt. alld lb 1.02 —
b-Naphthol, tech., flake, bbls., c.l., works lb .34 —
bbls, l.c.l. works lb 36 - —
Naphthol, ITR, red toner, bbls., works lb 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid)
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid)
1-Naphthol-5-sulfonic acid (see L acid)
1-Naphthol-5-sulfonic 8-amino acid (see S acid)
2-Naphthol-6,8 disulfonic acid (see Gamma acid)
Naphthol sulfonic mixed acid (see Cleve's acid)
a-Naphthylamine, dms, frt alld lb. 52 - —
b-Naphthylamine, tech., flake, bbls., works lb 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid)
2-Naphthylamine-4,8 disulfonic acid (see Cassella acid)
2-Naphthylamine-1-sulfonic acid (see Tobias acid)
2-Naphthylamine-6-sulfonic acid (see Broenner's acid)
2-Naphthylamine-7-sulfonic acid (see F acid)
Naringin, fib dms lb. 8.50 —
Neatsfoot oil, 15° cold test, dms lb 29 Nom.
20 cold test, dms. lb. 28 Nom.
30 cold test, dms. lb. .27 Nom.
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 8.00
Neomycin sulfate, fib dms., 1-kilo basis activity gram. .25 —
fib dms., 100-999-gram lots, basis activity gram. .30 - —
Tech., fib dms., gram 13½- —
Neopentylglycol, dms., c.l., dlvd lb .32 —
dms., l.c.l., same basis lb .33 —
Nerol, dms lb 4.75 —
Neroli oil, NF, French, bots. lb. 425.00 575.00
Tunisian, bots lb. 400.00 —
Nerolin, cns lb 2.45 2.85
Neville and Winther's acid, dms., frt. alld lb 1.40 —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls, dlvd lb. .68½- 75½
Nickel carbonate, bbls., dlvd lb. 78¼- .85¼
Nickel chloride, bbls, dlvd lb. .37 .45
Nickel formate, bbls., ton lots, frt. alld lb. .72 .73
Nickel metal, electro cathodes, cs., works lb 74 —
Nickel nitrate, dms., frt. alld lb .31½- .33½
Nickel oxide, black, bbls. lb .85 —
Green, bbls lb. .84 —
Nickel sulfate, bgs., c.l., dlvd lb. .28 —
bgs., l.c.l., dlvd lb. .28½- .36
Nicotinamide, USP, 50-kilo., dms., 100 kilos., dlvd kilo. 5.75 - 6.50
dms., less than 100 kilos, dlvd. kilo. 6.60 7.00
Nicotine sulfate 40%, dealers, 50-lb. dms, frt. alld lb 1.20 - —
40% manufacturers, 500-lb. dms., frt. alld lb. 1.05 - —
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs. lb. .10¼- —
Nikethamide, cbys. lb 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs 5.75 —
cbys., l.c.l. works E 100 lbs 6.05 6.85
38° Be., cbys. c.l., works E 100 lbs 6.25 —
cbys., l.c.l., works E 100 lbs. 6.55 7.35
40° Be., cbys. c.l., works E. 100 lbs 6.75 —
cbys. l.c.l. works E 100 lbs. 7.05 7.85
42° Be., cbys., c.l., works E. 100 lbs. 7.25 —
cbys., l.c.l., works E 100 lbs. 7.55 8.35
66.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
Nitric acid, CP, NF, consumer, cbys., extra, c.l., works lb. .18½- —
cbys. extra l.c.l. works, lb. .20 - —
5-pint bots. extra, cs., c.l., same basis lb. .22½- —
5-pint bots. extra, cs., l.c.l., same basis lb. .24 .25
dms. frt alld lb. .99 —
m-Nitroaniline, cryst., dms., frt. alld lb. 1.15 - —
Paste, dms. frt alld. 100% basis lb 1.10 - —
o-Nitroaniline, flaked, dms. t.l., frt. alld lb. .49 - —
dms., t.l., frt alld lb. .51 - —
o-Nitroaniline orange toner, kgs. lb 1.35 —
p-Nitroaniline, c.l., t.l., dms., 20,000 lb. min., dlvd lb. .44½- —
dms. l.c.l., same basis lb. .46½ —
o-Nitroanisole, tech. tanks, frt alld. lb. .36 - —
p-Nitroanisole, tech., solid, dms., frt. alld lb. .73 - —
Nitrobenzene, dbl dist., dms., c.l., frt alld lb. .13 - —
dms., l.c.l., frt. alld lb. .14 - —
tanks, frt. alld lb. .11 - —
p-Nitrobenzoic acid, dms., c.l., works lb. .63 - —
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works lb. .64 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. 37½- —
bbls., l.c.l., same basis lb. 33½- 40½
18-20 cps., bbls., c.l., same basis lb. 39½ —
bbls., l.c.l., same basis lb. 40½- 42½
250-400, 600-1,000 seconds, bbls., l.c.l. same basis lb. 43 46
Nitrocellulose spirit soluble 30-35 cps. ¼ ½ seconds bbls., c.l. same basis lb. 43 —
bbls. l.c.l., same basis lb 44 46
5-6 cps. 40-60 seconds, bbls., c.l. same basis lb 42 —
bbls. l.c.l., same basis lb 43 45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra, but returnable.
o-Nitrochlorobenzene, dms. c.l., frt. alld lb 15 - —
dms. l.c.l. same basis lb 16 —
tanks same basis lb 13 —
p-Nitrochlorobenzene, dms lb 26 .27
2-Nitro-p-cresol, tech., dms., dlvd lb 88 —
Nitroethane, dms. c.l. dlvd E lb 25 —
dms. l.c.l., dlvd E lb 28½ —
tanks, dlvd E lb 22½ —
Nitroethane prices West of Rockies are 1c. higher
Nitrogen solutions, tanks, f.o.b. works, ton 164.00 - —
Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va lb 065 —
Cyls. t.l., min 5 tons, same basis lb .07½- —
Cyls., l.c.l., t.l.t. same basis lb. .15 —
Nitrogenous process tankage, bulk, works unit ton 4.50 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago works unit-ton. 3.35 - —
Nitromethane, dms, t.l., dlvd E lb 25 —
dms, l.t.l. dlvd E lb 26½ —
Nitromethane prices West of Rockies are 1c higher
a-Nitronaphthalene, bbls. frt. alld. lb 31 - —
o-Nitrophenol, dms., works, frt. equald lb .94 - —
p-Nitrophenol, dms, c.l. frt alld lb 45 —
dms. l.c.l. frt alld lb 47 —
1-Nitropropane, dms, c.l. frt alld E. of Rockies lb 23½- —
dms. l.c.l. same basis lb .25 —
tanks same basis lb 21 —
2-Nitropropane, dms, c.l. frt alld E of Rockies lb .18½- —
dms. l.c.l. same basis lb .20 —
tanks same basis lb 16 —
Nitropropane prices West of Rockies are 1c per lb higher
m-Nitrotoluene, tech. dms. frt alld. lb. 50 - —
o-Nitrotoluene, dms. c.l., frt. alld lb .15 - —
dms. l.c.l. frt alld. lb. 16 - —
tanks, frt. alld. lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms. l.c.l. works lb. .28 —
flake, dms., c.l., t.l., works lb. .27½- —
dms. l.c.l. works lb .28 —
m-Nitro-p-toluidine, dms. lb. 1.25 —
Nonylphenol, dms. c.l. frt. alld lb .22½- —
dms., l.c.l., frt. alld. lb. .23½- —
tanks, frt. alld lb. .20 —
Nonylphenol prices on shipments to Western States are 2c higher
Nutmegs, East Indian, whole, bgs. lb. 1.40 - —
West Indian, bgs. lb. 1.26 - 1.28
Nutmeg oil, USP, dist., East Indian, cns lb 9.00 12.00
West Indian, cns. lb 9.00 12.00
Nux vomica, bls. lb. .20 —
Powd., bbls., bxs. lb. .20 .22

O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms lb. .46 - .48
Octane, indust., tanks, Bayonne, N.J gal. .20 —
1-Octanol, tech., dms., c.l., dlvd., Zone 1 lb. .43½- —
dms., l.c.l., dlvd. Zone 1—lb. .45½- —
tanks, dlvd., Zone 1 lb. .41 - —
Octyl alcohol, perfumers grade, bots. lb. 1.60 - 3.25
Octyl alcohol, tech, (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½- —
dms l.c.l. same basis lb .55 —
Octylphenol, bgs., c.l., works lb. .22½- —
bgs., l.c.l., works lb. .23 - —
tanks, works lb .21½- —
Octylphenol in dms., 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms lb. .15¾- .16¾
tanks lb. .13¾- —
Oleic acid, dbl-dist. (white), dms. lb. 17 - .19½
tanks lb. .14½- —
S. D., dms. lb. .16 - .18½
tanks lb. .13½- —
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs lb. .15 - .20
Tears, cs. lb. .22 - .30
Olibanum oil, bots lb. 5.00 7.65
Extra fine, bots lb. 8.00 9.50
Olive oil, edible, dms., spot, duty-paid gal. 2.35 - 2.40
Olivine, crude, works ton 12.00 - —
20 mesh, works ton 15.00 - —
100 mesh works ton 20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works oz 19.20 - —
gran., cns., 50 lbs., same basis oz 21.65 - —
powd., cns. 50 lbs. same basis oz 21.65 - —
Orange oil, expressed, USP, Calif., cns., dms lb. .70 - .90
Calif., sweet., cns. dms lb. .60 - —
Florida, cns., dms lb. .0 - .45
Messina, cns. lb. 3.25 5.00
West Indian, bitter, cns., dms., lb. 2.50 - 3.50
Orange peel, bitter, Haitian, bls lb .18 .20
Sweet lb. .28 .30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns. lb. 1.80 - 2.30
Orris root, Florentine, bls. lb .55 - —
powd., bbls., bxs lb .65 - —
Verona, bls lb .35 - —
powd., bbls., bxs lb .45 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde)
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid)
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol)
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol)
Orthotolidine (see o-Tolidine base)
Orthotoluidine (see o-Toluidine).
Ouabain, USP bots gram 3.00 4.00
Ouricury wax, crude, bgs. lb. .54 - .55
Refd., pure, bgs. lb. .60 - .62
Oxalic acid, bgs., c.l., works lb. .18 - —
bgs., 10,000-lb. lots, works lb. .19 - —
bgs., smaller lots, works lb. .20½- —
Oxalic acid in drums is priced ½c. per lb higher.
b-Oxynaphthoic acid, pigment manufacture, dms., frt alld lb. .912 - —
Dyestuff manufacture, dms., same basis lb 1.03 - 1.14
Oxyquinolin sulfate, cns. 100-lb. lots, works lb 4.75 - 5.00
cns., smaller lots, works lb. 4.92 - 5.17

P

Palm oil, clarif., dms lb. .1400- .1500
tanks lb. .11¼- —
Palm oil acid, double dist., dms. lb. .15¼- .17¾
single dist., dms lb .14¾- .17¼
tanks lb. .12¼- —
Palmarosa oil, cns lb. 4.90 - 6.00
Papain, powd. bots. lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots oz. 5.00 - —
cns., smaller lots oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns oz 7.10 - 7.35
Paprika, Bulgarian, bgs. lb. .27 - —
Hungarian, bgs lb .29 - —
Spanish, bgs. lb. .30 - —
Yugoslavian, bgs. lb. .31 - .37
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid)
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachlorophenol (see p-Chlorophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine)
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Paracresol (see p-Cresol)
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner red, bbls. lb. 1.21 - —
Chlorinated, kgs. lb. 1.36 - —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- —
Paraffin, fully refd., 122°-124°F., ASTM, tanks, refy lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
Paraffin, fully refd., 132°-134°F., ASTM, tanks, refy lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .14 - —
Paraffin wax (see Paraffin)
Paraformaldehyde 91% flake, bgs., c.l., frt alld lb. .10 - —
bgs., l.c.l., frt. alld lb. .12 - .13
91% powd. bgs., c.l. ex whse. lb. .1715- —
bgs. l.c.l. ex whse lb. .1865- —
USP-X, fib dms., c.l. lb. .19 - —
fib dms., 1,000-lb. lots lb. .20 - —
fib dms., smaller lots lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms. t.l., dlvd lb. .14 - —
55-gal. dms. l.c.l., dlvd lb. .15 - —
tanks, dlvd. lb. .11¼- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol)
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion ethyl, dms. frt alld lb. .84 —
Parathion prices 2c. per lb higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Passion flower herb, bls. lb. .35 - .40
Patchouli oil, imp., cns. lb. 5.60 - 6.50
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd E of Rockies lb. 1.00 —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, old process, 45%, bgs., f.o.b., mills ton 55.00 - —
solvent, same basis ton 52.00 - —
Peanut oil, crude, tanks, f.o.b. mills. lb. .12⅝- —
Refd., dms. lb. .17⅞- .18⅛
tanks lb. .15⅞- —
Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
Dom., tech., powd., 150 jelly grade, bbls lb. 1.28 - —
Imp., Danish, bbls ex whse lb. 1.28 - —
Pelargonic acid, dms., c.l., dlvd lb. .25 - —
ton lots, same basis lb. .27½- —
tanks, same basis lb. .23½- —
Penicillin, potassium, cryst., bulk, 1,000,000 units. .019 - —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .021 - —
Pennyroyal oil, USP, imported, cns. lb. 1.95 - 2.70
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald lb. .21 - —
bgs., l.c.l., same basis lb. 22¼- .23
Pentachlorophenol in dms. 1c, higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .31 - —
bgs., l.c.l., dlvd. lb. .33 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs. lb. .45 - —
Lampong, bgs. lb. .45 - —
Red, Funtuas, bgs. lb. .32 - —
Japanese, Hontoka, bgs. lb .37½- —
Santaka, bgs. lb. .31½- —
Sudanese, bgs. lb. .36 - —
White, Muntok, bgs lb. .74 - —
Peppermint leaves, dom., USP, bls., dms lb. No stocks.
imp., USP, dms lb. .80 - .85
Peppermint oil, nat., dms. lb. 5.00 - 5.50
Redist., USP, dms lb. 5.50 - —
Perchloroethylene, dms., c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd lb .12¼- —
Peri acid, dry, bbls., frt. alld lb. 1.60 —
Paste, bbls. frt. alld lb. 1.55 —
Peru balsam, dms. lb. 1.10 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms lb. 2.30 - —
Petrolatum, cream, dms., c.l., refy. lb. .08125- —
dms., l.c.l., dlvd. lb. .10125- .11375
tanks, refy. lb. .05875- —
Extra amber, dms., c.l., refy lb. .07125- —
dms., l.c.l., dlvd. lb. .09125- .10375
tanks, refy. lb. 04875- —
Petrolatum, lily white, dms., c.l., refy lb. .08625- —
dms., l.c.l., dlvd. lb. .10625- .12
tanks, refy. lb. .06735- —
USP, snow white, dms., c.l., refy. lb. .09125- —
dms., l.c.l., dlvd lb. .11125- .125
tanks, refy. lb. .06875- —
Petrolatum, USP, soft yellow, dms., c.l., refy lb. .07125- —
dms., l.c.l., dlvd. lb. .095 - .10375
tanks, refy. lb. 04875- —
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS
Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55% sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb .91 - —
dms., l.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.05 - —
dms. same basis lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E. of Rockies lb. .16¾- —
non-ret. dms., l.c.l., same basis. lb. .17¾- —
tanks, same basis lb. .14¾- —
82-84% (cresol 16-18%) non-ret. dms., c.l., same basis lb. .16½- —
non-ret dms., l.c.l., same basis. lb. .17½- —
tanks, same basis lb. .14½- —
30°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18 - —
Phenol, 30°C., or above, tar dist., non-ret. dms., l.c.l., same basis. lb .19 - —
tanks, same basis lb. .16 - —
USP, syn., dms., c.l., t.l., frt. alld lb. .18½- —
dms., same basis lo. .20½- —
tanks, same basis lb. .16½- —
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld lb. 1.30 - —
250-lb dm., same basis lb. 1.35 - —
Phenothiazine drench, fib. dms., t.l., dlvd lb. .46 - —
fib. dms., ton lots, dlvd lb. .49 - —
NF, fib. dms., t.l., dlvd lb. .45 - —
fib. dms., ton lots, dlvd lb. .48 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol)
Phenylacetaldehyde, soln., 50%, bots lb. 2.15 - 2.35
100%, bots. lb. 3.80 - 4.00
Phenylacetic acid, pure, cryst., cns. lb 1.25 1.75
dl-Phenylalanine, dms., works lb. 27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib dms., 200-lb. lots, dlvd. E lb. 3.45 - —
fib dms., smaller lots, dlvd E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .41 - —
dms., l.c.l., dlvd. E. lb. .42½- —
tanks, dlvd E lb. .38½- —
m-Phenylenediamine, dms., c.l., t.l., frt. alld lb. 1.08 - —
l.c.l., l.t.l., same basis lb. 1.10 - —
o-Phenylenediamine, comi, fib. dms, 100 to 1,000 lbs., works, lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 - —
Phenylethanolamine, dms., c.l., works lb. .75¼- —
dms. l.c.l., same basis lb. .77 - —
Phenylethyl acetate, bots. lb. 1.25 - 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 1.50
Standard, dms lb. 1.10 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld lb. 1.50 - —
dms. smaller lots, frt. alld lb. 1.70 - 1.85
Phenylethylphenyl acetate, bots lb. 4.00 - 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine 97%, 450-lb. dms. lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. lb. 1.80 - —
fib dms., smaller lots, dlvd. E lb. 2.10 - —
o-Phenylphenol, dms., l.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 - —
Philippine copal gum, pale, chips, bgs lb. .23¾- .26
nubs, bgs. lb. .33¼- .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .20 - .24
Phloroglucinol, comi., fib. dms., works lb 6.40 - —
CP, bots., works lb. 17.75 - —
Tech., fib dms. works lb 10.45 - —
Phloxin red toner (see Eosin red toner).

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Prepared by U. S. Industrial Chemicals Co.

U.S.I. CHEMICAL NEWS

December ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1960

Polyethylene Coatings Cut Fertilizer Loss in Soil

It has been reported recently that coating conventional fertilizers with polyethylene slows down the rate at which they release constituents to the soil. In experiments, a coated fertilizer lost only 5.4% of its potassium, while uncoated fertilizer lost 81.3% in the same period.

Most fertilizer salts dissolve very rapidly in most soils, and, if not used, can be lost. Fertilizer is generally applied when a crop is planted or starts growing, when its nutrient needs are small, and not at midseason, when the nutrients are most needed by the crop. It is felt that by coating the fertilizer, and metering out the nutrients more nearly as plants require them, a more efficient use of fertilizer would result.

New Denaturant Approved For SDA-40 Formulations

The Alcohol & Tobacco Tax Division has just approved a third denaturant for use in specially denatured alcohol (Formula No. 40) — a synthetic organic called "Bitrex," chemically, benzyldiethyl (2:6-xylylcarbamoyl methyl) ammonium benzoate.

"Bitrex" is much more bitter than brucine or quassin, the two denaturants used exclusively in SDA-40 until now. In addition to ⅛ gal. tert-butyl alcohol, only ¼ oz. of "Bitrex" is required to denature 100 gallons of ethyl alcohol, as against 1½ oz. for the other denaturants.

There are now four SDA-40 formulations approved by ATTD. U.S.I. designations are as follows:

SD-40-1 . . 1½ oz. brucine alkaloid
SD-40-2 . . 1½ oz. brucine sulfate
SD-40-3 . . 1½ oz. quassin
SD-40-4 . . ¼ oz. "Bitrex"

Cl_2-N_2 Mix Suggested for Degassing Aluminum Melts

A new treatment has been proposed for removing dissolved hydrogen and included oxides from molten aluminum. It employs a mix of 10% chlorine—90% nitrogen.

In melting and casting aluminum, oxides must be eliminated and hydrogen controlled. Chlorine treatment is regularly used but, in an attempt to eliminate fuming and corrosion problems, nitrogen has been tried. However, results from nitrogen flushing vary from day to day.

Experimenters have determined that 10% chlorine and 90% nitrogen gives the consistent results of chlorine alone, releases no fumes, eliminates corrosion.

U.S.I. Expands Program to Give Handling Help to Sodium Users

New Hydrocarbon Desulfurization Process, Other New Uses Spur Interest in Sodium Equipment, Maintenance, Safety

Because of the interest in new uses of sodium such as U.S.I.'s new, economical sodium process for reducing thiophene levels in hydrocarbons, the company expects increased interest in its program of plant design assistance to sodium users. U.S.I.'s sodium production engineers have often helped customers and prospects set up and maintain trouble-free operation in plants using sodium. The company now plans to make more plant men available to work on these problems.

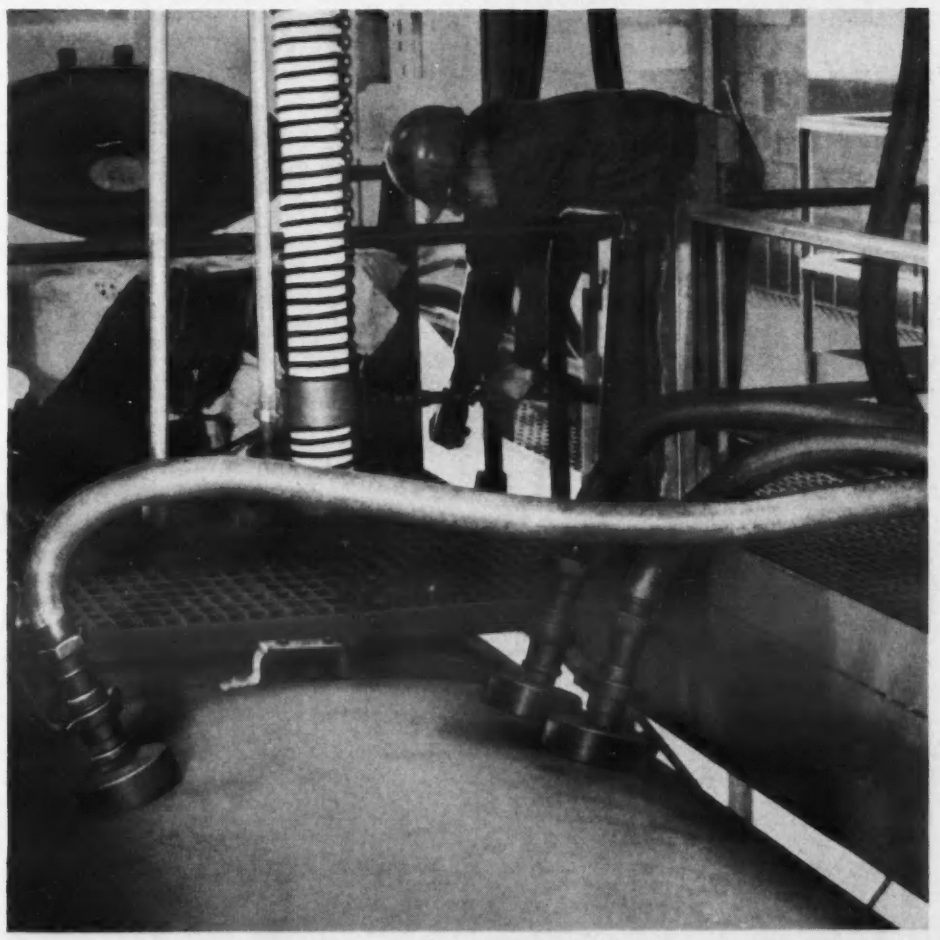
Layout and Equipment Assistance

Engineers from U.S.I.'s Ashtabula, Ohio, sodium plant can and do provide engineering help in laying out sodium processing and handling equipment. Typical examples are tankcar unloading stations, solid pack melting layouts, design and layout information on sodium lines, filters, pumps, valves and metering.

MORE

New Caustic Soda Book Just Issued by U.S.I.

Facts about caustic soda are covered in a new, 36-page booklet now offered by U.S.I. Up-to-date, practical information on properties, applications, methods of analysis, shipping, handling procedures, and safety measures is included. There are many graphs and tables, an extensive bibliography, and a complete index. For your copy, address Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., N. Y. 16, N. Y.



In typical sodium tankcar unloading station, designed by U.S.I. plant engineers, molten sodium discharges through vertical pipe heated by induction coil. Hot oil flows into tankcar coils through metal hoses.

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December ★ **U.S.I. CHEMICAL NEWS** ★ 1960

CONTINUED

Sodium Handling

The Ashtabula men, from their own production experience, have the specialized knowledge required for selecting proper types of pipe, valves, flanges, gasketing materials, line heating devices, and other accessories. On many occasions, they have been able to give a customer the maximum of troublefree operation by sharing this experience with them.

In addition to offering initial plant design assistance, U.S.I. engineers will trouble-shoot existing sodium handling equipment, and can usually make recommendations that will enable customers to correct troublesome situations at minimum expense.

Safety and Maintenance Instruction

In many instances, safety instructions are needed by customers. The information which U.S.I. plant men have supplied on the safe handling of sodium, and disposal of scrap, to customers' safety engineers and operating personnel has proved very helpful. This has done much to allay the fears some people seem to have in handling sodium.

One of the most common aids to customers is instruction in the cleaning of sodium drums, valves, fittings, pipe lines and filters. Very simple procedures are involved, but they must be seen at first hand to minimize problems.

Customers often require assistance in the repair of sodium valves and other process accessories involved in the handling of sodium. Here again U.S.I. plant men are able to make recommendations and supply definite information and specifications.

U.S.I. also makes available a comprehensive brochure, "Handling Metallic Sodium on a Plant Scale," to help customers and prospects with processes involving the metal. The company recommends that this brochure be studied first, after which the U.S.I. sodium plant engineers can be consulted on handling problems.

Role of Patent Department In Chemical Research Stressed at ACS Symposium

In a "Planning for Research" Symposium held by the ACS Division of Chemical Marketing and Economics on Sept. 13, Dr. Janet Berry, Manager of U.S.I.'s Patent Department, discussed how close cooperation between Research and Patent Groups can assure best results from a company's research and development program.

In the initial planning stage of a project, Dr. Berry pointed out, a Patent Department *informed of the plan* can search patents and literature thoroughly to acquaint research management with all of the prior art. This prevents costly duplication of work, and provides a complete foundation on which the research group can build. The savings in time and money can be enormous.

In the active laboratory stage, Dr. Berry emphasized, Research can not always know just what should be patented. If complete reports on *all* developments are sent to the patent group for evaluation during this stage, the patents applied for can be of greatest value to the company.

In the final commercialization stage, Dr. Berry concluded, further benefits can be obtained by reporting all design or process changes during scale-up to the Patent Department. These changes can then be examined for further important innovations which may be patentable.

Dr. Berry

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

New anti-static spray suggested for use during printing and converting of plastics, paper, textiles; during chemical processing; on instruments, etc. Said to chemically neutralize static generated from atmosphere or friction. **No. 1660**

Infrared spectrophotometers, gas chromatography instruments and accessories now being leased to users on three-year basis, after which users may renew lease or buy instruments at small percentage of original cost. **No. 1661**

Fertilizer-grade ammonium nitrate is subject of new manual now available at nominal cost. Covers recommended procedures for proper packaging, handling, transportation, storage—at all stages from manufacturer to consumer. **No. 1662**

Advantages of bulk handling of polyethylene resins discussed in new, 24-page booklet. Analyzes in detail—with help of photos, diagrams, charts and tables—economics of bulk handling in differing situations. **No. 1663**

Titanium welding is subject of new booklet now being sold. Discusses best methods for welding piping and tubing by gas tungsten-arc process. Information has been gathered from laboratories, companies, colleges and literature. **No. 1664**

Synthetic magesium silicate covered in new data sheet. Said to be efficient purifying agent for contact filtration refining of organics such as alcohols, aldehydes, esters, ethers, halogenated hydrocarbons, monomers, silicones, syrups, solvents. **No. 1665**

Self-emulsifiable sperm oil, recently developed, is said to give permanent emulsions by agitating 5-10% of product with 95-90% hot or cold water. Offered for cutting oils, textile and leather oils, petroleum additives, etc. **No. 1666**

"Properties and structure of polymers" a new book now being sold. Explains important features of mechanical behavior of polymers in terms of fundamental principles of molecular behavior and structure. **No. 1667**

New phosphating cleaner and metal conditioner reported to remove rust, corrosion, mill-oil in one step; to retard corrosion and oxidation; to deposit new type colorless phosphate coating on surfaces. Very good rinsability claimed. **No. 1668**

New high-melting synthetic wax (M.P. 156°C, 313°F) commercially available. Is hard brown wax with very high flash point and good electrical insulating properties. Insoluble in all solvents at ordinary temperatures. **No. 1669**

PRODUCTS OF U.S.I.

Heavy Chemicals: Metallic Sodium, Anhydrous Ammonia, Ammonium Nitrate, Nitric Acid, Nitrogen Fertilizer Solutions, Phosphatic Fertilizer Solution, Sulfuric Acid, Caustic Soda, Chlorine, Sodium Peroxide.

Organic Solvents and Intermediates: Normal Butyl Alcohol, Amyl Alcohol, Fusel Oil, Ethyl Acetate, Normal Butyl Acetate, Diethyl Carbonate, DIATOL®, Diethyl Oxalate, Ethyl Ether, Acetone, Acetoacetanilide, Acetoacet-Ortho-Chloranilide, Acetoacet-Ortho-Toluidide, Ethyl Acetoacetate, Ethyl Benzoylacetate, Ethyl Chloroformate, Ethylene, Ethyl Sodium Oxalacetate, Sodium Ethylate, Urethan U.S.P. (Ethyl Carbamate), Riboflavin U.S.P.

Pharmaceutical Products: DL-Methionine, N-Acetyl-DL-Methionine, Urethan USP, Intermediates.

Ethyl Alcohol: Pure and all denatured formulas; Anhydrous and Regular Proprietary Denatured Alcohol Solvents SOLOX®, FILMEX®, ANSOL®M, ANSOL PR.

PETROTHENE® . . . Polyethylene Resins

MICROTHENE . . . Finely Divided Polyethylene Resin.

Animal Feed Products: DL-Methionine, MOREA® Premix (to authorized mixer-distributors).

U.S.I. INDUSTRIAL CHEMICALS CO.
Division of National Distillers and Chemical Corporation
99 Park Avenue, New York 16, N. Y.

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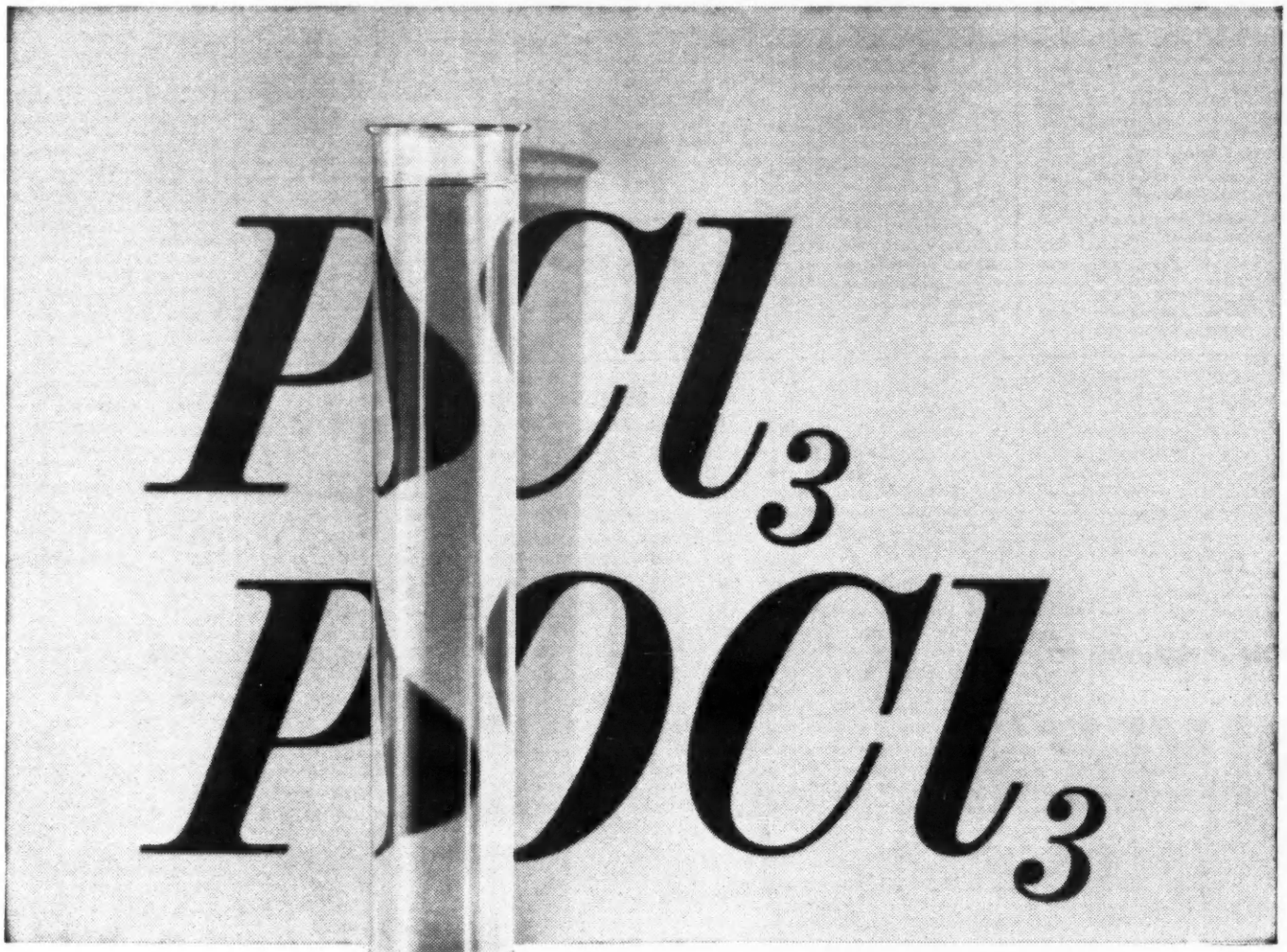


4 REASONS WHY THESE FMC CHEMICALS ARE THE BEST YOU CAN BUY

FMC's **experience** in handling these hazardous materials is hard to match. You can rely on FMC for safe shipment ...for advice in storing and handling PCl_3 and $POCl_3$.

FMC's **research staff** will gladly work with you in developing new compounds using these chemicals. If you have an application in mind, take advantage of this service.

FMC is **basic in phosphorus and chlorine:**—Since we start with our own highly-purified elemental materials, you get the benefit of minimum impurities in FMC's phosphorus chlorides.

FMC's **strategic location** and primary source of raw materials means we can meet all your requirements—on schedule!

Available in any quantity from drums to tank-cars. Write today for technical data.

TYPICAL USES

PCl_3 and $POCl_3$ are excellent chlorinating and condensing agents. They are important intermediates for gasoline additives, plasticizers, dyestuffs. . . .

Phosphorus trichloride is used to make surfactants and reacts with alcohols and phenols to form phosphites.

Phosphorus oxychloride is widely used in the synthesis of organic phosphates, including gasoline additives, plasticizers, and non-burning functional fluids.

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION
Chemicals and Plastics Division
161 East 42nd Street, New York 17, N. Y.

Phosgene—Potassium Metabisulfite

Phosgene, ret. cyls., works	lb.	.15½	—
Phosphate defluorinated (see under D).			
Phosphate rock, Curacao, Atlantic ports, New Orleans	ton.	46.50	—
Phosphate rock, Florida, land pebble run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines.	short-ton.	4.989	5.398
68-70%, b.p.l., bulk, c.l., same basis	short-ton.	5.849	5.858
70-72%, b.p.l., bulk, c.l., same basis	short-ton.	6.429	6.438
74-75%, b.p.l., bulk, c.l., same basis	short-ton.	7.329	7.338
76-77%, b.p.l., c.l., bulk, same basis	short-ton.	8.219	8.228
Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.64.			
Phosphoric acid, food grade, 75%, chys., c.l., works, E., frt. equald	100 lbs.	7.00	—
chys. l.c.l., same basis	100 lbs.	7.25	7.75
tanks, t.w., works	100 lbs.	5.60	—
80% chys., c.l. frt equald	100 lbs.	7.85	—
chys. l.c.l., works	100 lbs.	8.10	9.35
tanks, t.w., works	100 lbs.	6.00	—
NF 85%, chys., c.l., works	100 lbs.	8.50	—
chys., l.c.l., works	100 lbs.	8.75	9.00
tanks, t.w., works	100 lbs.	6.65	—
Phosphorus, amorph., red, dms., t.l., works	lb.	.55	—
dms., smaller lots, works	lb.	.56	.57
white (yellow), solid, dms., c.l., works, frt. equald	lb.	.20	.20½
dms., l.c.l., works, frt. equald	lb.	.21½	—
tanks, works, frt. equald	lb.	.19	—
Phosphorus oxychloride, dms., c.l., works	lb.	.14	—
dms., l.c.l., works	lb.	.15	—
tanks, works, frt. equald	lb.	.12½	—
Phosphorus pentasulfide, powd., dms., c.l., works	lb.	.13½	—
dms., l.c.l., works	lb.	.14½	.15½
Solid, dms., c.l., works	lb.	.11½	—
dms., l.c.l., works	lb.	.12½	.13½
Phosphorus pentoxide, dms., c.l., works	lb.	.1375	.1475
dms., l.c.l., works	lb.	.1475	.1675
Phosphorus sesquisulfide, dms., cs., c.l., works	lb.	.38	—
dms., l.c.l., works	lb.	.39	.40
Phosphorus trichloride, dms., c.l., works	lb.	.14	—
dms., l.c.l., works	lb.	.15	—
tanks, works	lb.	.12½	—
Phthalic anhydride, bgs., c.l., works, frt. equald	lb.	.19	.23
bgs., l.c.l., same basis	lb.	.20	.24
tanks, same basis	lb.	.18½	.22½
Phthalimide, 97-98%, dms., frt. alld	lb.	.65	—
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies.	lb.	2.90	—
Resinated, bbls., same basis	lb.	2.75	—
Water dispersable, bbls., same basis	lb.	1.52	—
Phthalocyanine blue prices 1c. higher W. of Rockies.			
Phthalocyanine green toner, bbls., works	lb.	3.35	—
Resinated, bbls.	lb.	3.00	—
Water dispersable, bbls.	lb.	1.71	—
Phthalocyanine green prices 1c. higher W. of Rockies			
Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more	lb.	5.00	—
NF, fib. dms.	lb.	5.20	—
a-Picoline, dms. c.l., works, frt. equald	lb.	.48	.48
dms., l.c.l., works, frt. equald	lb.	.46½	.49
tanks, same basis	lb.	.43	.46
b-Picoline, 98% dms., t.l., works.	lb.	1.05	—
dms., l.c.l., same basis	lb.	1.15	—
tanks, same basis	lb.	.95	—
b,g-Picoline, 5°C. dms., c.l., works.	lb.	.32½	—
dms., l.c.l., works	lb.	.33	—
g-Picoline, dms., t.o.b., works	lb.	1.60	—
tanks, t.l., same basis	lb.	1.50	—
Picric acid, NF, bbls.	lb.	.85	—
Tech., bbls.	lb.	.44	—
Pigment green B, kgs.	lb.	1.50	—
Pilocarpine hydrochloride, USP, bots	oz.	5.25	—
Pilocarpine nitrate, USP, bots., vials.	oz.	5.15	—
Pimento, Jamaican, bgs.	lb.	.68½	—
Mexican, bgs	lb.	.56	—
Pimento berry oil, NF, dms.	lb	3.75	9.25
Pimento leaf oil, crude, cns	lb.	2.40	2.60
Pine oil, dest.-dist., dms., l.c.l. works	lb.	18	—
dms., l.c.l. ex whse. New York.	lb.	173	—
Steam-dist., dms., ex whse., New York	lb	.185	—
dms., dlvd	lb.	188	—
Pineneedle oil, Siberian (see Abies Siberoca oil).			
Pink root, bls.	lb.	2.25	—
Piperazine anhyd. dms. c.l., frt alld	lb	1.80	—
dms., l.c.l., same basis	lb	1.85	—
Piperazine citrate, 36% dms., 1,000 lbs or more, frt alld	lb	1.15	—
Piperazine dihydrochloride, 51%, dms. 1,000 lbs or more, frt alld	lb	1.23	—
Piperazine hexahydrate, 44% dms., 1,000 lbs or more, frt. alld	lb	86	—
dms., 200-900 lbs. frt. alld	lb	89	—
Piperazine phosphate, 42%, dms., 1,000 lbs or more, frt. alld	lb	1.06	—
Piperidine, dist., 98% min., dms., c.l. t.l. frt equald	lb	2.55	—
Piperonyl butoxide dms. dlvd E.	lb	4.50	5.05

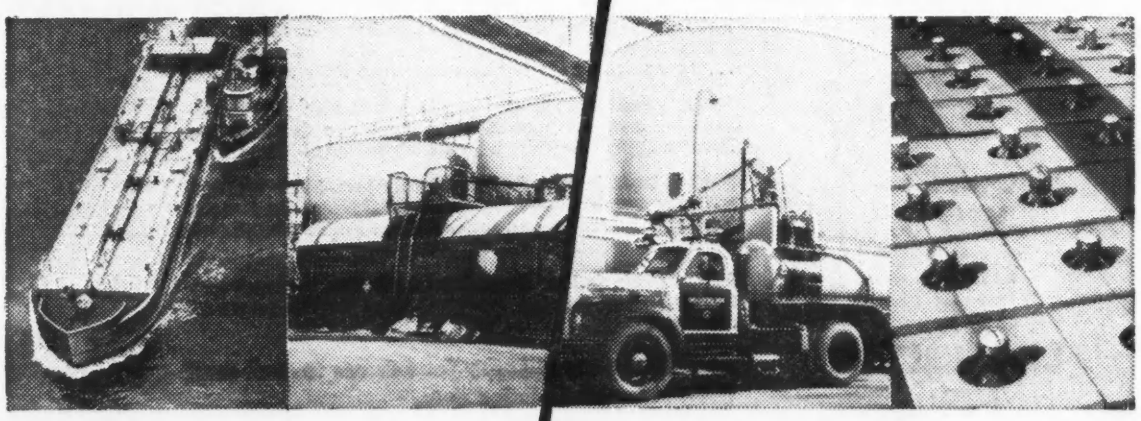
PITCHES

Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Platinum metal, works	oz.	81.00	85.00
Pleurisy root, bls.	lb	.45	.50
Podophyllum resin, NF, dms.	lb.	12.50	—
Poke root, bls.	lb.	.19	.22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units.		.52	—
bulk, bots., 25-50 billion units. 1,000,000 units.		.54	—
bulk, bots., 1-25 billion units. 1,000,000 units.		.56	—
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works	lb.	.42	—
dms., 10,000-20,000-lb lots, works.	lb.	.44	—
dms., smaller lots, works	lb	.47	.49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb lots, works	lb.	.42	—
dms., 10,000-20,000-lb lots, works	lb.	.44	—
dms., smaller lots, works	lb	.47	.49
Pontianak copal gum, chips, bgs	lb.	.25	—
Nubs, bgs	lb	.37	.40
Poppy seed, Argentine, bgs.	lb	No stocks.	
Dutch, bgs.	lb.	.16	—
Danish, bgs.	lb.	.15	—
Polish, bgs.	lb.	.16	—
Turkish, bgs.	lb.	.12	—
Potash, caustic, liq. 45% basis dms., c.l., works	100 lbs	4.25	—
dms., l.c.l., same basis	100 lbs.	5.25	—
tanks, same basis	100 lbs	3.70	—
reg., flake, 88-92% dms., c.l., same basis	100 lbs.	9.55	—
reg., flake 88-92% dms., c.l., same basis	100 lbs.	11.05	—
solid, 88-92% dms., c.l., works	100 lbs	9.10	—
dms., l.c.l., works	100 lbs.	10.60	—
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E	lb.	.31	—
Potassium bicarbonate, USP, gran. dms	lb.	.22	—
powd., dms	lb.	.24	—
Potassium bichromate, gran., bgs., c.l., t.l., works	lb.	.18	—
bgs., l.c.l., works	lb.	.18½	19¼
Potassium bichromate in dms ¾c. higher.			
Potassium bitartrate, NF, gran., powd., 100-lb bgs., c.l., frt. equald	lb.	.37	—
100-lb bgs., 5,000 lbs., 1 shipt., same basis	lb.	.38	—
100-lb bgs. smaller lots, same basis	lb.	.40	—
Potassium borohydride, powd., dms., works	lb.	16.00	22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb lots			
Potassium bromate, 200-lb. dms., c.l., frt. alld	lb.	.49	—
Potassium bromide, USP, gran., bbls., kgs	lb.	.39	.40
Potassium carbonate, dom., NF, gran., bbls., dms	lb.	.20	—
Dom. tech. powd., bbls., dms	lb.	.21	.23
Dom., calcinated, bgs., c.l. works. 100 lbs.		8.50	—
bgs., l.c.l., same basis 100 lbs.		9.55	—
Dom., hydrated, 83-85%, bgs., c.l., works	100 lbs.	7.10	—
bgs. l.c.l. works	100 lbs.	8.15	—
Potassium chlorate, cryst. dms., c.l., works	lb.	.12¼	—
dms., l.c.l., works	lb.	.13½	.14½
Powd., dms., c.l., works	lb.	.12¾	—
dms., l.c.l., works	lb.	.14	.15
Potassium chlorate, NF, cryst., works	lb.	.12¼	—
dms., 2,000 lbs or more, works	lb.	.16¾	—
NF, gran., 25-lb metal dms	lb.	.36	—
NF powd., dms., 2,000 lbs. or more, works	lb.	.17¼	—
Potassium chloride indust. 99.9% KCL, bulk, c.l., works	ton.	29.00	—
bgs., c.l., works	ton.	.00	—
99.3% KCL, bulk, c.l., works.	ton.	28.00	—
bgs., c.l., works	lb.	33.00	—
USP, cryst., dms.	lb	.20	.22
USP, gran., dms.	lb.	.21	.23
USP, powd., dms.	lb	.24	.26
Potassium chloride agricultural (see Potassium muriate)			
Potassium chromate, tech., dms., works	lb.	.50	.51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E	lb.	.43	—
powd., 250-lb dms., same basis.	lb.	.46	—
Potassium cyanide, dms., 20,000-lb. lots or more, works	lb.	.42½	—
dms., 2,000-19,999-lb. lots, works.	lb.	.43	—
dms., smaller lots, works	lb.	.44	.44½
Potassium dichromate (see Potassium bichromate).			
Potassium ferricyanide, dms., ton lots, works	lb.	.50	—
dms., smaller lots works	lb.	.65	—
Potassium ferrocyanide, dms., ton lots	lb.	.24½	—
dms., smaller lots	lb.	.29	—
Potassium fluoborate, fib dms., c.l., works	lb.	.30	—
fib dms., l.c.l., works	lb.	.31	—
Potassium fluoride, dms., works	lb.	.36	.37
Potassium gluconate, 100-lb dm., f.o.b. works E	lb.	1.67	—
Potassium guaiacol sulfonate, NF, dms	lb	2.10	2.30
Potassium hydroxide, tech (see Potash caustic).			
Potassium hydroxide, USP, pellets, 100-lb dms. 1 to 100-dm. lots	lb	.33½	.38
Potassium hypophosphite, NF fib. dms., 1,000-lb lots	lb.	1.38	—
Potassium iodide, USP cryst., gran., dms., 500-lb., f.o.b. works.	lb.	1.55	—
Potassium manure salt, min. 20% K.O, bulk, c.l., works.	unit-ton.	.17	.1765
Potassium metabisulfite, gran., dms.,	lb.	.16	—
Powd., dms.	lb.	.27	—

When it comes to

MINERAL ACIDS



SULFURIC ACID
Standard: 60° and 66° Baumé, 99% H_2SO_4
Diamond: 66° Baumé
Reagent, ACS

NITRIC ACID
Diamond: 36°, 38°, 40°, and 42° Baumé
Strong Nitric Acid, 95% and fuming grades
Photo-Engravers' Grade
Reagent, ACS

MURIATIC (Hydrochloric) ACID
18°, 20° and 22° Baumé, Standard, Diamond, Crystal and Reagent Grades

HYDROFLUORIC ACID
Anhydrous, Aqueous 70%, and Reagent

PHOSPHORIC ACID
Wet Process, 65% and 75%, Com'l and Fertilizer Grades
Food Grade, 75%
N.F., 85%

MIXED ACID
Varying proportions of Nitric and Sulfuric Acids to meet customers' requirements

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Compatible with many analgesics and antipyretics commonly used in cold and cough preparations, Pyrilamine has local anesthetic properties that add a soothing quality to cough formulations. Its antihistaminic efficacy reduces allergy-induced congestion (of the nose and eyes) when present. Today—after years of use—favorable reports on Pyrilamine in oral combinations for relieving the distressing symptoms accompanying the common cold and other disorders continue to appear in medical journals.
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Contact your Merck representative for technical and in new product development.
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MERCK & CO., INC. • RAHWAY, NEW JERSEY

Potassium Muriate—Rice Bran Oil

Potassium muriate, standard, bulk, c.l., works unit-ton .35 - .37
bagged 60% minimum K_2O, same basis ton 26.00 -27.20
Gran., bulk, c.l., works unit-ton .36 - .38
bagged, 60% minimum K_2O, same basis ton 26.00 -27.80

Inside prices apply to material contracted for prior to July 1, 1960.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs 17.00 —
bbls., smaller lots 100 lbs 16.00 -19.00
gran., bgs., 20-ton lots 100 lbs 9.50 —
bgs., smaller lots 100 lbs 11.00 12.00
powd., bgs., 20-ton lots 100 lbs 10.50 —
bgs., smaller lots 100 lbs 12.00 -13.00

Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b works E lb .32 - —

Potassium pentaborate, gran., dms., c.l. works ton 219.50 - —
dms., ton lots, ex whse ton 311.00 - —
dms., smaller lots, ex whse ton 316.00 — —

Powdered potassium pentaborate $10 per ton higher.

Potassium perchlorate, dms., c.l., works lb .18½- —
dms., l.c.l., works lb .19 .20

Potassium permanganate, coml., kgs. works lb .25 .33
USP, dms., works lb .29 .35

Potassium persulfate, dms., c.l., works lb .17½- —
dms., l.c.l., works lb .18 .21

Potassium pyrophosphate, tetrabasic, dms., works lb .1475- .1575

Potassium prussiate red (see Potassium ferrocyanide).

Potassium prussiate yellow (see Potassium ferro-cyanide).

Potassium silicate, electrical grade, 30° Be, 1:2.0, dms., c.l., works 100 lbs 6.50 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs 7.25 7.65
tanks, works 100 lbs 6.15 - —

Potassium silicate, electrical grade, 40.5° Be, 1:2.1, dms., c.l., works 100 lbs 5.95 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs 6.70 - —
tanks, works 100 lbs 5.60 — —

Potassium silicate, glass grade, bgs., c.l., works 100 lbs 17.30 -18.00
bgs., l.c.l., works 100 lbs 17.80 —

Soln., 39° Be, 1:2.5, dms., c.l., works 100 lbs 4.95 - —
dms., l.c.l., 5-dm. lots or more, works 100 lbs 5.70 - —
tanks, works 100 lbs 4.60 - —

Potassium silicofluoride, bgs., works lb .09½- .10

Potassium silicofluoride in drums, 0.4c. per lb higher.

Potassium stannate, dms. frt. alld. E lb .784 - .857

Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works unit-ton .67½- .69½

Inside price applies to tonnage contracted for prior to July 1, 1960.

Outside price applies to tonnage contracted for after that date but also for delivery during the current month.

Potassium sulfate, NF VII, cryst., dms., lb .31 - .33
NF VII, gran., 400-lb. dm lb .18 - —
NF VII, powd., 400-lb. dm lb .17 - —

Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).

Potassium thiocyanate, NF, cryst., dms., works lb .96 - .98
Tech., dms., works lb .77 - .79

Potassium titanate, ctns., c.l., works lb .16¼- —
ctns., 5-ton lots, works lb .16½- —
ctns., 1-ton lots or less, works lb .16¾- —

Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price, ton 13.65 - —
bulk, works, July forward ton 14.00 - —

Potassium-sodium tartrate, NF gran. or powd., 250-lb. dms., c.l., works E lb .42½- —
250-lb dms., 5,000-lb lots, same basis lb .43 - —
250-lb. dms., same basis lb .43½- —

Potassium-titanium fluoride, fib. dms., works lb .39 .40

Potassium-zirconium flouride, fib. dms., c.l., works lb .50 - —
fib. dms., l.c.l., works lb .52½- .55

Pregnenolone, bots. gram No prices.
Pregnenolone acetate, bots. gram No prices.

Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld lb 2.36 - —
USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb 2.40 - —
dms., 500 lbs lb 2.43 - —
dms., 100 lbs lb 2.50 - —

Progesterone, USP, bots gram No prices.
Pregnenolone acetate, bots gram No prices.
Propenyl guaethol, dms. lb 24.30 -27.00

b-Propriolactone, tech., dms., c.l., f.o.b. works lb .47½- —
dms., l.c.l., t.t.l., same basis lb .48½- —
tanks, same basis lb .45 - —

Propionic acid, syn., pure, dms., c.l., dlvd lb .23¾- —
dms., l.c.l., dlvd. lb .24¾- —
tanks, dlvd. lb .20¾- —

n-Propyl acetate, dms., c.l., dlvd. lb .14¾- —
dms., l.c.l., dlvd lb .16¼- —
tanks, dlvd. lb .12½- —

n-Propyl alcohol, dms., c.l., dlvd lb .14 .15
dms., l.c.l., dlvd lb .15½- .16½
tanks, dlvd. lb .11½- .12½

n-Propyl gallate, dms., 100 to 2,000-lb lots, works fb 3.90 4.40

n-Propyl-p-hydroxbenzoate USP, dms lb 3.30 3.40

Propyl thiouracil, bots., 50 kilo lots or more kilo 55.00 —
bots., smaller lots kilo 55.10 -55.30

n-Propylamine, dms., c.l., dlvd lb 1.24 —
dms., l.c.l. same basis lb 1.255 —

n-Propylene dichloride consumers', dms., c.l. dlvd. E lb .0845- —
dms., l.c.l., same basis lb .0995- —
tanks same basis lb .07 —

Propylene dichloride prices 1c West 1c. higher, same basis

Propylene glycol, indust., dms., c.l., dlvd. E lb .15 - —
dms., l.c.l., same basis lb .16¾- —
tanks, same basis lb .12½- —
USP, dms., c.l., dlvd. E lb .17 - —
dms. l.c.l., same basis lb .18¾- —

Propylene glycol methyl ether, dms., c.l., dlvd lb .20 - —
dms., l.c.l., same basis lb .21 - —
tanks, same basis lb .18½- —

Propylene oxide, dms., c.l., dlvd E. lb .17 - —
dms., l.c.l., dlvd. E lb .18½- —
tanks, dlvd. E lb .14½- —

Psyllium seed, black, bgs lb .30 .35
Blonde, bgs. lb .18 .20
Husks, bgs. lb .42 .45

Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb .03¾- .04¼
bgs., smaller lots lb .03½- —
Imp., Italian, silk-screen, coarse, bgs. ton lots lb .06½- —
fine, bgs. ton lots lb .04 - —
sun dried, coarse, bgs ton 60.00 —
fine, bgs. ton 60.00 -70.00

Pumpkin seed, bgs lb .25 .30

Pyrethrins, syn (see Allethrin).
Pyrethrum flowers, fine grd. 0.9% pyrethrins, bgs., ton, works lb .50 - —
Powd., 1.3% pyrethrins, bgs., ton works lb .71 - —
Pyrethrum liquid, 20-1 basis (2 grams pyrethrins per 100cc odorless base) dms., works, gal 9.60 - 9.80
Pyrethrum liquid, 100-1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal 45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb 11.00 -11.35
purit, 20%, dms. works lb 11.00 -11.35
Pyridine, denat., dms. c.l. works and frt. equald gal 2.77 - —
dms., l.c.l., same basis gal 2.80 - —
Refd., 2° non-ret. dms., c.l., same basis lb .75½- —
dms., l.c.l., same basis lb .76 - .76½
tanks, same basis lb .71 - —
Pyridoxine hydrochloride, USP 500-gram bots., dms., f.o.b. works kilo 95.00 -100.00
Pyrites, Canadian, 48-50% S, mines, long-ton 4.50 - 5.00
Pyrocatechol (see Catechol)
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works lb 3.50 - —
Pyrogallol, NF 100-lb dms lb 3.50 - —
Pyroxylin, USP, bots lb 9.50 - —

Q

Quassia chips lb .10 - —
Quicksilver (see Mercury metal)
Quince seed, bgs lb 1.75 - —
Quinidine sulfate, USP, 1,000-oz. dm oz .74½- —
Quinine, NF, 1,000-oz. dm. oz .3750- —
Quinine bisulfate USP, 1,000-oz. dm. oz .38 - —
Quinine hydrochloride, 1,000-oz. dm. oz .3650- —
Quinine sulfate, USP, 1,000-oz. dm. oz .3150- —
Quinoline, dms., c.l., frt. equald lb .50¾- —
dms., l.c.l., same basis lb .51¼- —
tanks, same basis lb .50 - —

R

R salt paste, dms., frt. alld., 100% basis lb .98 - —
Powd., frt. alld., 100% basis lb 1.08 - —
Rapeseed oil, dms lb .15¼- .15½
tanks lb .13¾- —
Rare earth oxalate, NF, 45-50%, bgs., works lb 1.15 - —
Rauwolfia serpentina root, powd., bbls., dms lb 1.00 - 1.30
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

RED PIGMENTS
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizarine, bbls., works lb 1.25 - —
Reserpine, cryst. bots gram 1.25 - —
Resorcinol, tech. grade, bgs., c.l., works, frt. equald lb .77½- —
bgs., l.c.l., same basis lb .78½- —
Resorcinol in dms., 1c. per lb. more.
USP, powd., dms., works lb 2.95 - —
Resorcinol monoacetate, NF dms. lb 3.50 - —
Rhatany root, bgs lb .14 - .16
Rhodamine red toner, molybdated, PMA, kgs., works lb 6.00 —
Tungstated PTMA works, kgs lb 6.60 —
Rhodinol, 5-lb cans lb 42.00 -51.00
Synthetic lb 14.00 -16.00
Rhubarb root, India, whole, bgs lb .25 —
powd. bgs lb .35 —
tanks, same basis lb .14½- —
Riboflavin, USP fib dms., kilo or more dlvd kilo 36.00 - —
Riboflavin, 5-phosphate-sodium fib dms., kilo or more, dlvd kilo 104.50 —
Rice bran oil, clarified, dms., c.l., tanks, dlvd, E lb .14 .14½
lb .12 Nom.

SILICONE NEWS from Dow Corning

Silicones Sell...Satisfy!

The average woman today may not be familiar with all the specific advantages of silicone cosmetics, but is well aware of the number of real benefits she has derived when using other items in the home that have "with silicones" on the label . . . greater ease of application; longer lasting protection; a better product.

If you seek sales and repeat sales, as a woman seeks to maintain beauty, turn to Dow Corning Silicones. No other ingredients provide so many benefits.

She'll buy if it's better... and silicones make it better

A prized possession, beauty is seldom neglected . . . is given all the attention, all the protection possible. Today's woman looks to cosmetics to protect as well as accentuate her natural beauty. And she finds this combination in cosmetics and toiletries that contain Dow Corning Silicones.

She has learned of the inherent water repellency of silicones . . . how this works against chapping; keeps toiletries from washing away; keeps protection on the job longer. Water-borne irritants are repelled, yet the skin remains free to "breathe". Because silicones resist oxidation, cosmetics stay fresh, never turn rancid.

Silicones also contribute to the ease and pleasure of applying creams, lotions, and other toiletries. Spreading is smooth, easy, with no "balling" or "rolling". Products are pleasant to the touch; never leave a sticky or slippery feeling. Penetration is fast, requires no tedious rubbing-in.

Contact the Dow Corning office nearest you to learn how silicones make good cosmetics better, increase sales. Address Dept. 6312A.

first in silicones

Dow Corning CORPORATION
MIDLAND, MICHIGAN
ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW YORK WASHINGTON, D. C.

Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots lb. 1,132.00 —
Turkish, bots lb. 360.00 750.00
Rosemary oil, Spanish, NF, cns., dms lb. .97 1.40
Spanish, tech, cns., dms lb. .59 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market)
Rotenone, fib, dms., works unit-lb. .10½- —
Resin, 25-45% fib dms., works unit-lb. .10½- —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03¾ —
bgs., ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 —
Group 3 gal. .13875- —
Houston, Texas gal. .155 —
Rue oil, bots lb. 2.75 3.00
Rutin, NF fib dms., 10 kilo lots kilo. 13.00 —
fib dms., 5 kilo lots kilo. 13.50 - —
fib dms., 1 kilo kilo. 14.00 - —
Ryania, 100% powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

S

S acid, bbls., works lb. 3.23 - —
Sabadilla seed activated, ground with lime bbls lb. .42 .44
Saccharin, calcium, fib dms., 1,000-lb lots, works lb. 2.30 - —
USP, gran., soluble, dms., 1,000-lb. lots lb. 1.40 - —
dms., smaller lots lb. 1.50 - —
USP powd., soluble insoluble, dms., 1,000-lb. lots lb. 1.45 - —
dms., smaller lots lb. 1.55 - —
Saccharin, USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.43 - —
dms., smaller lots lb. 1.53 - —
Safflower oil, dms., New York lb. .1725- .1750
tanks, Ad Coast lb 15¼- 15½
Saffron, Mancha Superior, tins lb. 19.50 - —
Safrol dms. lb .65 - —
Sage, Dalmatian, bgs lb. .40 - —
Greek, cns. lb .15 - —
Italian, cns. lb .18 - —
Sage oil, clary, bots lb. 12.00 -15.00
Dalmatian, cns lb. 2.85 3.25
Spanish, cns lb 1.25 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb. 1.23 - —
dms., l.c.l. same basis lb. 1.25 - —
Salicylamide, 100-lb. dms lb. 1.05 - —
Salicylic acid, tech., fib, dms., c.l., t.l., dlvd lb. .40½- —
fib dms., l.c.l., dlvd lb. .44¾- —
Salicylic acid, USP, cryst, 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾- —
200-lb fib dms., less than 1,000 lbs lb. .54¾- —
100-lb fib dms, 1,000 lbs or more lb. .53¾- —
100-lb fib dms, less than 1,000 lbs lb. .56¼- —
USP, powd, 100-lb fib dms., 1,000 lbs. or more lb. .58¾- —
100-lb fib dms., less than 1,000 lbs lb. .61¾- —
Salol, NF, gran, bbls, kgs lb 1.20 —
Powdered salol 25c per lb higher.
Salt rock, paper bgs, c.l 100 lbs 1.09 - —
Salt, table vacuum common, fine, paper bgs., c.l 100 lbs. 1.34 - —
Saltcake, dom, bulk, works, 100% Na2SO4 basis ton 28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, E Indian chips, bgs., lb. .55 .66
powd, fib dms lb. 75 .76
Sandalwood oil, cns lb. 21.00 - —
Sarcosine, tech., tanks, f.o.b., works, frt equald lb. 1.03 —
lb. No stocks.
Sassafras oil, artif., dms lb. 45 —
Nat., dom., dms lb. 1.40 - —
Savory oil, cns lb. 4.75 - —
Schaeffer's salt paste, dms., frt. alld. 100% basis lb. .85 - —
Powd, bgs, frt alld, 100% basis, lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 13.00 - —
Sebacic acid, CP, bgs., c.l., works, lb. .69½- —
bgs., l.c.l., works lb. .71½- —
Purified, bgs, c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture, fib dms, 5,000-lb. lots lb. .30½- —
fib dms., smaller lots lb. .31 - .33
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls lb. 3.00 - —
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings lb. .16 - —
Tinnevelly, No. 1, bls lb. .22 - —
No. 2, bls lb. .18 - —
No. 3, bls lb. .14 - —
pods, bls. lb. .28 - —
powd., bbls., bxs lb. .17 - —
Serpentaria root, bls lb. 6.50 - —
Sesame oil, USP, dms., l.c.l lb. .37 - .38
Sesame seed, Colombian, bgs lb. .15½- —
Lebanese, hulled bgs lb. .19 - —
Nicaraguan, hulled, bgs lb. .25 - —
nat., bgs lb. .14 - —
Salvadorian, Nat. bgs lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .47 - —
dms., l.c.l. works lb. .22 - .20¼
bbls., 1,500-lb. lots lb. .46 - —
kgs., 1,500-lb. lots lb. .47 - —
Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb higher for all packages.
Shellac, bleached, refd, bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb lots lb. .57 - —
kgs., 1,500-lb lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No 2, bgs. 10-bg. lots, lb. .34 .37
superfine, bgs. 10-bg. lots lb. .32 .34
Shellac in 1 to 10-bg lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .43 - —
tanks, works gal. .25 - —
Sienna, pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs, l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs, l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd, 325 mesh, bgs., c.l., works ton 25.00 —
bgs, l.c.l, works, ex whse ton 45.00 -55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs, c.l, works ton 20.00 - —
bgs., l.c.l., works ton 25.00 - —
99½%, 140 mesh, bgs., c.l. works ton 15.00 - —
bgs, l.c.l, works ton 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .20 - —
tanks, works lb. .13 - —
Silver bullion, ingots, cs Troy oz. .91¼- —
Silver cyanide, bots, 1,000-oz. lots, oz. .94¾- —
bots, 500-oz lots oz. .95¼ —
bots., 100-oz lots oz. .96¼ —
Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots, 250-300 oz., same basis oz. .67¾- —
USP granular silver nitrate 4c. per oz. higher
Silver proteinate, mild, USP, 16-oz. bots oz. 1.45 - —
Snakeroot oil, Canada, cns lb. 40.00 43.00
Soapbark, crushed, bls lb. .30 .35
Powd., bls lb. .35 .40
Whole, bls lb. .20 .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 4.77
bulk, c.l., works 100 lbs 1.80 —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 —
paper bgs, l.c.l., stock pts. 100 lbs. 3.95 4.72
bulk, c.l., works 100 lbs. 1.55 —
Soda, caustic, flake 76%, dms., c.l., works, frt equald 100 lbs. 5.20 - —
liq. 50% sellers tanks works, dry basis 100 lbs 2.90 - —
50%, rayon type, sellers tanks, works, dry basis 100 lbs. 2.90 3.00
Soda, caustic, liq, 73%, sellers' tanks, works, dry basis, 100 lbs. 3.00 —
liq., 73% rayon type, sellers' tanks, works, dry basis lb. 3.00 3.10
solid, 76% dms., c.l., works, 100 lbs. 4.80 —
Soda, sal, conc., bgs., c.l., works, 100 lbs. 2.50 - —
bgs, smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd, E lb. .14½- —
NF, 60%, gran., dms, c.l., works, lb. .15½- —
dms., l.c.l., works lb. .17½- —

Sodium alginate, NF, white powd., dom, 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 1.80 - —
Sodium antimoniate, bgs., c.l., dlvd, E lb. .27½- —
bgs., l.c.l., dlvd, E lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm. less than ton lots, f.o.b. works lb. .24 - —
ton lots or more, same basis, lb. .23½- —
Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb. dms., ton lots or more, f.o.b., works lb. .18½- —
1,600-1,900 dms., same basis lb. .19 - —
100-500 dms., same basis lb. .20 - —
Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 6.80 - —
less than 100-kilos kilo. 7.05 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l., same basis lb. .39 - —
USP, dms., c.l., t.l., frt. alld lb. .38 - —
dms., ton lots, same basis lb. .43 - —
dms., 1,000-lb. lots, same basis lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs 2.90 - —
bgs., l.c.l., works 100 lbs 3.85 - —
USP, powd., bgs., c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l., works 100 lbs. 3.45 - —

Sodium bichromate, gran., ngs., c.l., t.l., works lb .13 —
bgs., l.c.l. works lb 13½- .14¾
Sodium bichromate in dms ½c. per lb higher
Sodium bifluoride, bbls., c.l., works, frt. equald lb 19½ —
bbls., l.c.l., same basis lb .2025 —
Sodium bisulfate, bulk, c.l., works, 100 lbs 2.00 —
dms, c.l., frt. equald 100 lbs 3.00 3.60
dms, l.c.l., frt equald 100 lbs 3.50 4.10
Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs 5.00 —
bgs., l.c.l., works 100 lbs 5.45 —
Soln., 35° bbls, c.l., works 100 lbs 1.70 —
bbls, l.c.l. works 100 lbs 2.20 —
Sodium borate (see Borax)
Sodium borohydride, powd., dms., c.l., works lb. 19.90 —
dms., l.c.l., works lb. 33.00 40.00
Sodium borohydride, stabilized water soln., 12% NaBH4, 100% basis, dms, works lb. 15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb lots.
Sodium bromide, USP, gran., dms., works lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 —
dms., l.c.l., works lb. .09½- .10½

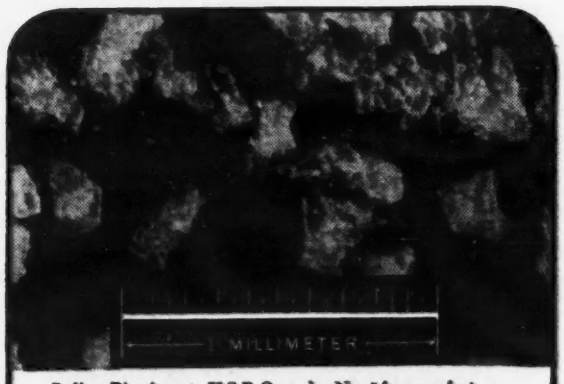
Get Sodium Bicarbonate in the grain size you need **every time...**

FROM CHURCH & DWIGHT

Sodium Bicarbonate U.S.P. Powdered No. 1—For general purpose use in pharmaceuticals, chemical processing, tooth powder, industrial applications.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

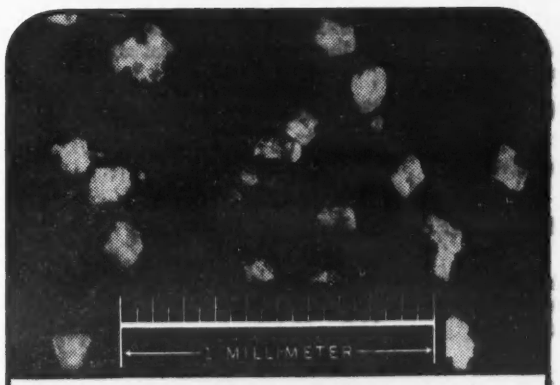
42 Mesh.....Trace	200 Mesh.....35.0%
100 Mesh.....5%	325 Mesh.....70.0%
170 Mesh.....20.0%	400 Mesh.....80.0%



Sodium Bicarbonate U.S.P. Granular No. 5 for manufacture and compounding of effervescent salts, fruit soft drink tablets and other pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

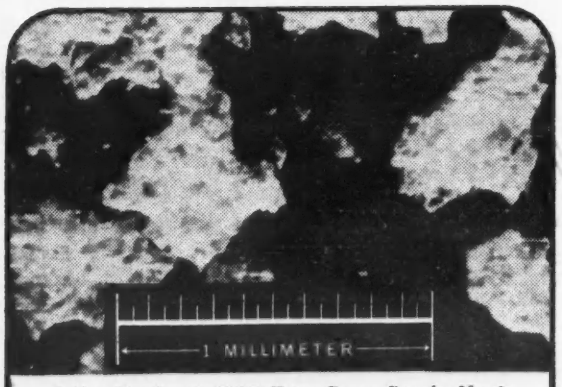
42 Mesh.....Trace	100 Mesh.....92.5%
65 Mesh.....27.0%	170 Mesh.....99.0%
80 Mesh.....66.5%	



Sodium Bicarbonate U.S.P. Granular No. 4 for use in pharmaceuticals, baking powders and cake mixes.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

80 Mesh.....Trace	200 Mesh.....91.0%
100 Mesh.....1.5%	325 Mesh.....98.5%
170 Mesh.....80.5%	



Sodium Bicarbonate U.S.P. Extra Coarse Granular No. 6 for use in formulating special pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

28 Mesh.....None	65 Mesh.....91.0%
42 Mesh.....13.0%	80 Mesh.....98.5%
48 Mesh.....33.0%	100 Mesh.....99.3%

Why jeopardize the shelf life or sparkling performance of your pharmaceutical products with an inappropriate granulation of sodium bicarbonate? To eliminate risks, specify Church & Dwight. You'll obtain the widest selection of grain sizes available because Church & Dwight is the country's largest supplier of Sodium Bicarbonate U.S.P. You'll also receive for the asking unmatched technical service based on more than 100 years of experience in the formulating of Sodium Bicarbonate. Unusual grain size requirements are given special attention. Try us and see. Write today for latest technical data sheets.

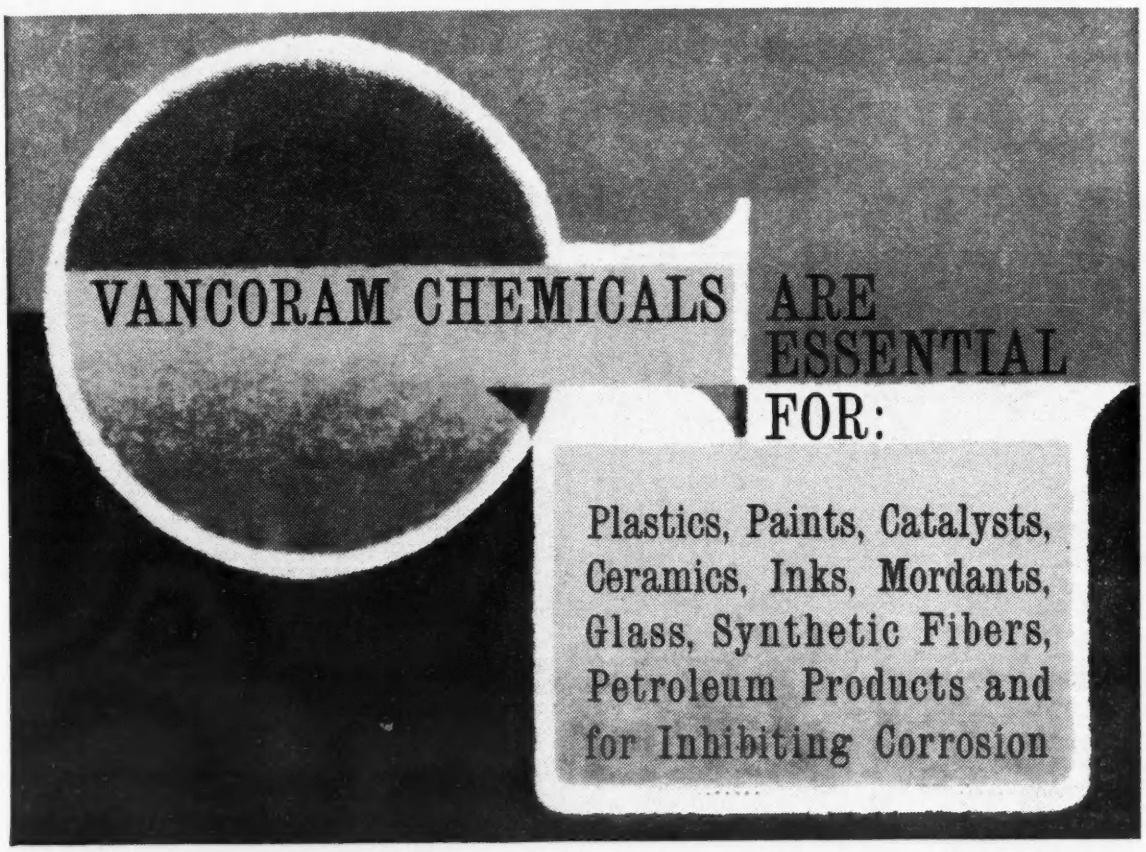
CHURCH & DWIGHT CO., INC., 70 PINE STREET, NEW YORK 5, N. Y.

Sodium chlorate in 100-lb dms., only, ¼c per lb higher
Sodium chloride, tech (see Salt).
Sodium chloride, USP gran, bgs, lb. .05 - —
Sodium chlorite, tech, dms., c.l., works lb. .58 - —
dms, 20-dm lots or more works lb. .66 —
dms., smaller lots, works lb. .70 .73
Sodium chloroacetate, tech, dms., c.l., works lb. .27 —
dms, l.c.l., works lb .28 —
Sodium chromate, anhyd, fib, dms., c.l., t.l., works lb. .14¾ —
fib dms, l.c.l., works lb. .15¼ .16½
Sodium chromate tetrahydrate, bgs, c.l, t.l., works lb. .1015- —
bgs., l.c.l. lb. .1065- .1190
Sodium citrate anhyd., 200-lb dm., f o b works E lb. .62 —
NF VIII gran, bgs., c.l., same basis lb. .26 —
USP XIV gran, bgs., c.l., same basis lb .29 —
Sodium citrate, USP powd prices ½c higher.
Sodium cyanate, dms, 1,000-lb lots, works lb. .85 —
dms, smaller lots, works lb. .90 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb lots lb. .176 - —
dms., same basis, 5,000 to 19,999-lb lots lb. .188 - —
dms., same basis, 1,000 to 4,900-lb. lots lb. .198 - —

Sodium cyclamate, 100-lb dm., f.o.b. works lb 1.95 - —
Sodium diacetate, annyd (9-41% acetic acid, dms, c.l., works lb. .18 —
250-lb dms, c.l., works lb 15¾- —
Tech, 33-35% acetic acid, dms., t.c.l. works b .15 —
250-lb dms., t.c.l., works lb. 15¾- —
Sodium dimethyl dithiocarbamate, 40% soln, dms, c.l., t.l, frt alld., 100% basis lb 42 —
dms., l.c.l, t.t.l., same basis lb .47 .52
tanks, same basis lb .38 —
Sodium ferrocyanide, bgs., 10-ton lots lb 13½- —
lb. 14¼ —
bgs, smaller lots
Sodium fluoride white, 97%, fib, dms., c.l., works, frt, equald lb. .1390- —
fib, dms., t.c.l., works, frt, equald lb. .1465- —
Sodium formate, bgs., c.l., works 100 lbs. 7.05 - —
bgs, t.c.l., ex whse 100 lbs 8.65 - —
Sodium gentisate, 100-lb fib dms.lb 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b works E lb .64 - —
Tech, bgs, c.l, t.l., same basis lb. .34 - —
Sodium hydride 50% soln in oil, dms., works lb. 1.25 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b shipping point, lb 2.20 - —
dms, 50-99 lbs, same basis lb 1.77 - —
dms., 100-999 lbs., same basis lb 1.20 - —
dms., 1,000 lbs or more, same basis lb. .95 - —

Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite dms c.l., frt alld lb .23½ —
dms, t.c.l. frt. alld. lb. 25¾- —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots, lb .23½- .25
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms, 1,000-lb. lots lb. .99 - —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb dms, f.o.b. works lb. 2.13 - —
Sodium lauryl sulfate, dms., c.l., divd lb. .20½- —
dms., t.t.l., divd. lb. 21½- —
tanks, divd. lb .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 6.50
c.l., bgs., works 100 lbs. 4.40 7.00
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate octahydrate, gran., bgs., c.l., works ton.210.00 - —
bgs., ton lots, ex whse 100 lbs 8.00 - —
bgs, smaller lots, ex whse. 100 lbs 9.25 -11.25
Tetrahydrate, bgs., c.l., works ton.210.00 —
bgs., ton lots, ex whse 100 lbs.13.93 —
bgs., smaller lots, ex whse. 100 lbs.15.18 -17.18
Sodium, metallic, bricks, c.l., works, lb. .21 —
Fused, 18,000-lb lots or more, works lb. .19½- —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld, lb .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b shipping pt 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.85 - —
dms., c.l., same basis 100 lbs.11.70 - —
dms., l.c.l., same basis 100 lbs.12.45 - —

Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs 8.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., l.c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb .92 .99
Cryst., dms. works frt alld lb .74 .76
Sodium monoglutamate (see Monosodium glutamate)
Sodium monohydrate (see Sodium carbonate monohydrated)
Sodium naphthionate, bbls. lb. .72 - —
Sodium nitrate dom., crude, bgs., c.l. works ton 48 00 - —
bulk, c.l., works ton 44 00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton 48.00 - —
bulk, c.l., same basis ton.44 00 - —
Sodium nitrite, USP, bbls., c.l., works, frt equald 100 lbs 9.00 - —
bbls., l.c.l., same basis 100 lbs.11 00 - —
Sodium orthosilicate, conc., dms. c.l., works 100 lbs 6.70 —
dms., t.c.l., works 100 lbs 7.05 7.65
Hydrated, flake, bbls., c.l., works 100 lbs 5.65 —
bbls., t.c.l., works 100 lbs 7 60 7.90
Sodium oxalate, 88%, bgs., works 100 lbs.12.35 - —
99% bgs., works 100 lbs.15 40 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate)
Sodium para aminosalicylate (see Sodium p-aminosalicylate)
Sodium pentachlorophenate, briquets, dms., c.l., works, frt equald lb. .26 —
dms., t.c.l. same basis lb. 27½ .34
Pellets, dms., c.l., same basis lb. .26 —
dms, c.l. same basis lb. 27½ .34
Powd., dms., c.l. same basis lb .25 —
dms, t.c.l., same basis lb. 26½ .33
Sodium pentabarbital, USP, dms., 100 lbs. or more lb 6.00 —
Sodium perborate, NF, tech., bgs., c.l., works lb. .18½- —
bgs, t.c.l., works lb. .19 .21
Sodium peroxide, dms., c.l., t.l., dlvd E. of Miss lb. .21½- —
dms., t.c.l., same basis lb. .22 .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 —
Sodium phenosulfonate, USP, IX, gran., dms lb. .52 .53
NF powd, dms lb. .55 .56
Sodium phosphate, dibasic, anhyd., bgs c.l. frt equald 100 lbs 7.95 —
bgs, t.c.l. same basis 100 lbs 8.35 9.40
Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt. equald, 100 lbs. 4.60 - —
bgs, t.c.l., frt equald 100 lbs 5 00 5.75
Dibasic, duohydrate, bgs., c.l. frt equald 100 lbs 7.60 —
bgs, t.c.l. same basis 100 lbs 8.10 - —
Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 .20½
Monobasic, anhyd bgs., c.l., frt. equald 100 lbs 9.00 —
bgs., t.c.l. same basis 100 lbs 9 40 10.00
Tribasic, anhyd, bgs., c.l., frt. equald 100 lbs. 9.00 —
bgs., t.c.l. frt. equald 100 lbs 9.45 10.05
Sodium phosphate in dms. 60c. to 80c. higher than bgs
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 —
Sodium propionate, any quantity, dms, dlvd E. of Rockies, lb 34½ —
Prices W of Rockies 3c per lb more
Sodium prussiate, yellow (see Sodium ferrocyanide)
Sodium pyrophosphate acid, bgs., c.l., works, frt. equald. 100 lbs.11.10 —
bgs., t.c.l., same basis 100 lbs.11 85 12.35
Sodium pyrophosphate, ferric, dms., c.l. t.l., works lb. .36 - —
dms., t.c.l. works.. lb. .37 - .39
Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 8.30 - —
Sodium salicylate USP dms., 1,000-lbs or more lb. .78½- —
dms., less than 1,000 lbs. dms.lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 —
Sodium sesquicarbonate, bgs., t.c.l., dlvd, zone 1 100 lbs 4.10 4.35
dlvd, zone 2 100 lbs 4.35 4.60
dlvd, zone 3 100 lbs 4.75 4.90
dlvd zone 4 100 lbs 5.35 5.60
Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss. south of 31°; Tex E. of 100°; S. of 31° Fla.; also Me., N. H and Vt in which there are special county zones; Davenport, Ia., and St Louis; (2) Ark E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss., No of 31°; (3) Ark. W of 96°, Kan., Neb W. of 98° N D., Okla., S. D., Tex., W of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo and El Paso, Tex
Sodium sesquisilicate, anhyd., bgs., c.l. t.l. works 100 lbs 5.70 - —
dms., c.l. t.l. works 100 lbs 6 20 - —
Sodium sesquisilicate hydrated, bgs., c.l. works 100 lbs 5.00 - —
bgs., 6,000-19,900 lb lots, works 100 lbs 5.35 - —
dms., c.l., works 100 lbs 5.50 - —
dms. 6,000-19,900 lb lots works. 100 lbs 5.85 - —
Sodium silicate, liq., 40° Be. 1:3.2, turbid dms., c.l., works. 100 lbs 1.65 —
dms. t.c.l., works 100 lbs 1.90 2.40
tanks works 100 lbs 1.20 —
47° Be 1:29.9 turbid, dms., c.l., works 100 lbs 2.25 —
dms., t.c.l., works 100 lbs. 2.60 3.45
tanks, works 100 lbs 1.90 —
52° Be 1:2.4 turbid, dms., c.l., works 100 lbs 2.65 —
dms., t.c.l., works 100 lbs 3.00 3.50
tanks, works 100 lbs 2.30 —
Solid, 1:3.2 bgs. works ton.67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., t.c.l., works lb 725- —
Sodium silicofluoride in dms. 0.4c. per lb. higher
Sodium stannate, dms. works, frt. alld., E lb. .642 - .702
Sodium sulfa drugs (see Sulfa name)
Sodium sulfanilate, bbls, works lb. .22 —
Sodium sulfate NF VII, dried, powd., dms lb .22½- —
Tech., anhyd. bgs., c.l. dlvd E ton 54 00 - —
Tech., detergent, rayon grade bgs c.l., works ton.36.00 - —
bulk c.l., works ton 32 00 —
USP, cryst., fib dms. lb. .17½- .18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In these and other products Vancoram Vanadium Chemicals are increasingly useful because of their dependability and versatility. You can rely on...

VANCORAM AMMONIUM METAVANADATE – (NH_4VO_3)

Grade	*Analysis*
Technical, Powder	NH_4VO_3 – 99% min.
C. P.	NH_4VO_3 – 99.8% approx.

VANCORAM VANADIUM PENTOXIDE – (V_2O_5)

Grade	*Analysis*
Technical – Air-Dried	V_2O_5 – 83 to 86%
Technical – Fused Flake	V_2O_5 – 88 to 92%
Purified	V_2O_5 – 99.6% approx.
C. P.	V_2O_5 – 99.9% approx.

VANCORAM SODIUM METAVANADATE – ($NaVO_3 \cdot xH_2O$)

Grade	*Typical Analysis*
Technical, Powder	V_2O_5 – 61.40% Na_2O – 20.90%

VANCORAM VANADIUM CHLORIDE – ($V_2O_2Cl_4$ – Concentrated Aqueous Solution) (Di Vanadyl Tetrachloride)

Grade	*Analysis*
C. P., Syrupy	$V_2O_2Cl_4$ – aqueous solution 82.00% approx. concentration

VANCORAM VANADYL SULFATE – ($VOSO_4 \cdot 3½ H_2O$)

Grade	*Typical Analysis*
C. P., Crystals	$VOSO_4 \cdot 3½H_2O$ – 22.1%V

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VANADIUM CORPORATION OF AMERICA
Producers of alloys, metals and chemicals

Sodium sulfhydrate, flake, 70-72%, dms. c.l. works, frt. equald	lb.	.07¼	—
dms., t.c.l., same basis	lb.	.08¼	—
Liq. 40-44%, tanks, works, 100% basis	ton.	130.00	—
Sodium sulfide, flake, dms., c.l., works, E., frt. equald	lb.	.06	—
dms. t.c.l., same basis	lb.	.07	—
Fused, bbls., c.l., works, E., frt. equald	lb.	.05½	—
bbls., t.c.l., same basis	lb.	.06½	—
Sodium sulfite anhyd., powd., bgs., c.l., works 100 lbs		7.55	—
bgs., t.c.l. same basis 100 lbs.		7.95	—
Anhyd., tech. bgs. c.l., works, 100 lbs.		3.50	—
bgs., t.l., same basis 100 lbs.		4.00	—
Sodium sulfocyanide. CP (see Sodium thiocyanate).			
Sodium tetraborate (see Borax).			
Sodium tetrasulfide, liq., 40%, dms., c.l., works frt equald	lb.	.04½	—
dms., t.c.l same basis	lb.	.05½	—
Sodium thiocyanate, CP, dms	lb.	.55	.65
Tech. anhyd. dms., 1 ton lots or more, works	lb.	.367	—
dms., less than ton lots, works	lb.	.387	—
Sodium thiosulfate NF cryst. bbls.	lb.	.13½	—
Tech. anhyd. 100-lb bgs. c.l., t.l., frt. equald 100 lbs.		7.75	—
100-lb bgs. t.c.l., t.l., frt. equald 100 lbs.		8.15	—
Sodium thiosulfate tech., anhyd., photo grade, 64-lb bgs., c.l., t.l., frt. equald lb.		.0775	—
64-lb bgs. t.c.l. t.l., frt. equald lb.		.0815	—
Tech., pentahydrate, photo grade, 100-lb bgs., c.l., t.l., frt. equald 100 lbs.		4.95	—
Sodium thiosulfate tech., pentahydrate, photo grade, 100-lb. bgs., t.c.l., t.l., frt. equald 100 lbs.		5.20	—
Sodium titanate, ctns. c.l., works, lb.		.14¼	—
ctns. 5-ton lots, works	lb.	.14½	—
ctns., 1-ton lots or less, works	lb.	.14¾	—
Sodium trichloroacetate, 90%, 100-lb dms., c.l., frt alld. E.	lb.	.35	—
50-lb. dms., c.l., frt. alld. E	lb.	.35½	—
10-lb cns., c.l. frt alld E	lb.	.42	—
Prices on Sodium trichloroacetate W. of the Rockies are 1¼c. per pound higher.			
Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs.		7.90	—
bgs., t.c.l., same basis 100 lbs.		8.65	—
Sodium trisilicate, powd., 1:3.2, bgs. c.l., works 100 lbs		8.95	—
bgs., t.c.l., works 100 lbs		9.70	-13.13
dms., c.l., works 100 lbs		9.45	—
dms., t.c.l., works 100 lbs.		10.20	-10.60
Sodium tungstate, tech., kgs., divd. E	lb.	1.32	—
Sodium-ammonium phosphate, purit., cryst., dms., works	lb.	.52	—
Sodium-carboxymethyl cellulose (see CMC).			
Sodium-cinchophen (see Cinchophen-sodium).			
Sodium formaldehyde sulfoxylate, dms., t.l., dlvd	lb.	.22½	—
dms., t.l.t., same basis	lb.	.23	—
Sodium-zirconyl sulfate, fib dms., 1,000-lb lots or more works	lb.	.28	—
fib. dms., smaller lots, same basis	lb.	.30	—
Solvent naphtha, coaltar, high-flash, tanks, frt equald	gal.	.30	.35½
Solvent naphtha, petroleum, straight aromatic, 310°-360°F b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York	gal.	.29	—
Houston, Texas	gal.	.29	—
355°-420°F. b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York,	gal.	.30	—
Houston, Texas	gal.	.30	—
Solvent naphtha, petroleum, partial aromatic, 211°-265°F b.r., 31°C. m.a.p., tankcars, New Jersey and New York	gal.	.235	—
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York	gal.	.275	—
Solvent naphtha, 319°-380°F. b.r., 27°C. m.a.p., tankcars, New Jersey and New York	gal.	.27	—
322°-395°F. b.r., 28°C. m.a.p., tankcars, New Jersey and New York	gal.	.28	—
Sorbitan monostearate fib dms., 20,000-lb. lots, works	lb.	.33½	—
fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.35½	—
fib. dms., smaller lots, works	lb.	.38½	.40½
Sorbitan tristearate, fib. dms., 20,000-lb. lots, works	lb.	.34	—
fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.36	—
fib. dms., smaller lots, works	lb.	.39	.41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works	lb.	.18	—
dms., t.c.l., works	lb.	.19	—
tanks, works	lb.	.16¼	—
cryst., resin grade, pellets, dms., c.l., works	lb.	.23	—
dms., 1 to 5-ton lots, works	lb.	.25	.26
powd., dms., c.l., works	lb.	.38½	—
dms., 10,000 to 20,000 lb. lots, works	lb.	.40½	—
Sorbitol, soln., comyl., aqueous, dms., c.l., works	lb.	.26	—
dms., t.c.l., works	lb.	.27	—
Soya protein, chemically isolated, old process, bgs., c.l., works,	lb.	.23	—
bgs., t.c.l., works	lb.	.23¼	.23½
Chemically isolated, new process, bgs., c.l., works	lb.	.20	—
bgs., t.c.l., works	lb.	.20¼	.29½
Soybean meal, 44%, bulk, unrestricted, Decatur	ton.	48.50	—
Soybean oil, crude, tanks, Decatur.	lb.	.10	—
Foots, soapstock, acid 25%, tanks,	lb.	.05	—
Refd., alkali, dms.	lb.	.1430	.1455
tanks	lb.	.1230	—
Clarified, dms.	lb.	.1380	.1405
tanks	lb.	.1180	—
Salad, dms.	lb.	.14¼	.14½
tanks	lb.	.12¼	—
Soybean oil acids, dbl. dist., dms.,	lb.	.16	.18½
tanks	lb.	.13½	—
S. D., dms.	lb.	.14¾	.17½
tanks	lb	.12¼	—
Sparteine sulfate, cns., 100 oz. or more	oz.	.80	—
Spearmint leaves, dom., bls	lb.	.75	—
Spearmint oil, NF, dms	lb.	7.00	7.80
Sperm oil, bleached winter, 45°, dms.	lb.	.1675	.1775
tanks	lb.	.1475	—
Nat., winter, 45°, dms	lb.	.1575	.1675
tanks	lb.	.1375	—
Spermaceti wax, blocks, cs.	lb.	.32	.33
Cakes, cs.	lb.	.33	.34
Spruce oil, cns., dms.	lb.	2.10	3.50
Squill, white, bls.	lb.	.16	.18
Powd., bbls., bxs.	lb.	.17	.20
St. John's bread, edible, bls.	lb.	.17	—
Stannic chloride, anhyd., dms., works	lb.	.812	.834
Stannic oxide, dms., dlvd.	lb.	1.10	1.11
Stannous chloride, anhyd dms., works	lb.	1.007	1.262
Hydrous, cryst., dms., works	lb.	.87	.88
Stannous sulfate, dms., works	lb.	1.062	1.102
Star root (see Helonias root).			
Stargrass root (see Aletris root.)			
Stavesacre seed, bgs.	lb.	.60	.61
Stearic acid, dbl., pressed, bgs.	lb.	.15¼	.17¾
Single-pressed, bgs.	lb.	.14¼	.17¼
Triple-pressed, bgs.	lb.	.17	.19½
Stearine, oleo (see Oleostearine.)			
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York	gal.	.18	—
tanks, Houston	gal.	.1475	—
tanks, group 3	gal.	.12875	—
Stramonium leaves, bgs.	lb.	.16½	.18
Streptomycin sulfate, bulk	gram.	.03	.032
Strontium bromide, NF, cryst., gran., 150-lb. dm., frt. equald	lb.	1.00	—
Strontium carbonate, pure, dms., 5-ton lots or more, works	lb.	.35	—
dms., 1-ton lots, works	lb.	.37	—
Tech., dms., works	lb.	.19	—
Strontium chromate, fib. dms., dlvd.	lb.	.48	—
Strontium iodide, jars, 25-lb. lots	lb.	3.57	—
Strontium nitrate, bgs., c.l., works, 100 lbs.		11.00	—
bgs., t.c.l., works 100 lbs.		12.00	—
Strontium salicylate, NF, dms	lb.	1.88	—
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works,	ton.	56.70	-66.15
Strophanthin G (see Quabain, USP).			
Strophanthin K, bots.	oz.	25.00	-25.50
Strophanthus seed, Kombi, biologically tested, bgs.	lb.	3.50	3.75
Styrax gum, USP, cs.	lb.	4.50	5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld.	lb.	.17	—
dms., t.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.14½	—
Styrene monomer, tech., 99.2%, dms., c.l.	lb.	.1504	—
dms., t.c.l., same basis	lb.	.1704	—
tanks	lb.	.1254	—
Above prices are escalated for each calendar quarter on the basis of cost of benzene and petroleum refining labor.			
Styrolyl acetate, bots.	lb.	1.03	1.10
Succinic acid, purif., cryst., dms., t.l., frt. alld.	lb.	.82	—
dms., l.t.l., same basis	lb.	.63	.75
Succinic anhydride, dms., c.l., t.l., dlvd.	lb.	.51	—
dms., t.c.l., same basis	lb.	.52	—
Sucrose, refd., white, bgs., refy E.	lb.	.0970	—
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd.	lb.	.33½	—
dms., l.t.l., same basis	lb.	.35	—
tanks, same basis	lb.	.31	—
100%, t.l., dms., dlvd.	lb.	.35½	—
l.t.l., dms., same basis	lb.	.37	—
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., t.c.l., works	lb.	1.00	—
Sugar (see Sucrose).			
Sugar cane, wax, dom., refd., slabs, 80-lb. ctns., works	lb.	.60	.65
80-lb ctns. spot	lb.	.65	.75
Sulfabenzamide, dms.	kilo	8.80	9.90
Sulfabenzamide-sodium, dms.	kilo.	9.00	-10.10
Sulfacetamide, USP, fib. dms	kilo.	6.61	6.83
Sulfacetamide-sodium, USP, fib. dms	kilo	8.15	9.25
Sulfadiazine, USP, microcrystals, dms	kilo.	23.35	24.45
USP, powd., dms.	kilo.	22.60	23.70
Sulfadiazine-sodium, USP, dms	kilo.	24.80	25.90
Sulfaguanidine NF X, dms	kilo	5.50	6.60
Sulfamerazine-sodium, USP, powd., dms	kilo.	24.80	25.90
Sulfamethazine, USP XV, microcrystals, dms	kilo.	19.65	20.75
USP XV, powd., dms.	kilo.	18.75	19.85
Sulfamic acid, cryst. dms., c.l., t.l., works 100 lbs.		16.00	—
dms., t.c.l., t.l., works 100 lbs.		17.50	18.50
Gran., dms., c.l., t.l., works 100 lbs.		14.75	—
dms., t.c.l., t.l., works 100 lbs.		16.25	-17.25
Sulfanilamide, NF, reg., 1,000 lb., frt. equald	lb.	1.50	—
NF, fib dm., frt. equald	lb.	1.55	—
Sulfanilamide quinoxaline, veterinary, dms	kilo.	16.28	—
Sulfanilic acid, tech., dms., c.l., frt. alld	lb.	.21	—
dms., t.c.l., frt. alld	lb.	.23	—
Sulfapyridine, USP XV, powd., bots., tins	kilo.	15.45	16.55
Sulfapyridine-sodium, monohydrate, dms	kilo.	16.55	17.65
Sulfathiazole, NF X, microcrystals, dms	kilo.	6.25	6.90
NF X, powd., dms.	kilo.	5.50	6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more	lb.	2.35	—

M&T also* supplies "workhorse"
TIN CHEMICALS

$SnCl_4$

TIN TETRACHLORIDE
(Anhydrous and Pentahydrate)

Color and perfume stabilization are among the older uses—electroconductive and electroluminescent coatings among the newer uses. The anhydrous is a fuming liquid soluble in water and many organics. The pentahydrate is an easily handled solid.

SnO

STANNOUS OXIDE

This very strong reducing agent is readily soluble in acids. It is used extensively as an intermediate in the preparation of other stannous salts used in electroplating, pharmaceuticals and glass manufacture.

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STANNOUS SULFATE

Available commercially only from M&T, stannous sulfate finds major applications in the liquor finishing of wire products and in other plating operations.

$SnCl_2$

STANNOCHLOR®
(Anhydrous Stannous Chloride)

Only M&T offers this pure, stable, and unusually powerful reducing agent. Soluble in many organic solvents, the easily handled white flakes also form water solutions readily.

* The M&T chemicals listed above have long been big-volume—commodity—*"workhorse"* chemicals. They got that way by solving product or process problems in a manner that no other chemical could match.

You may be interested in their possibilities as stabilizers, reducing agents or catalysts. In these areas they have proven particularly valuable. Or you may have a completely new problem. In any case, M&T offers more tin chemicals and more information on their chemistry and properties than you can obtain anywhere else.

See our insert in CMC Catalog *or write for data sheets on chemicals listed above.*

M&T Chemicals
METAL & THERMIT Corporation, Rahway, N. J.
Sn Sb P Si Ti Zr | organometallics and inorganics

Sulfur—Timbo Root

Sulfur, coml., flour, bgs., mines, 100 lbs 2.35 - —
bbls., mines 100 lbs 3.30 - —
lump, bgs., mines 100 lbs 2.25 - —
bbls., mines 100 lbs 2.80 - —
Sulfur crude, dom. bright, bulk, f.o.b cars, mines long-ton 23.50 - —
export, f.o.b vessels, Gulf ports, long-ton 25.00 - —
US and Canada f.o.b vessels Gulf ports long-ton 25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower
Sulfur, crude, imp. Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton 24.00 - —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs 5.65 - —
bbls., mines 100 lbs 7.00 - —
flour, light, bgs., mines 100 lbs 5.25 - —
bbls., mines 100 lbs 6.25 - —
lump, bgs., mines 100 lbs 4.95 - —
rolls, bgs., mines 100 lbs 5.50 - —
bbls., mines 100 lbs 6.25 - —
salt block, bgs., mines 100 lbs 4.65 - —
virgin block, bbls., mines 100 lbs 4.70 - —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs 2.45 - —
bbls., mines 100 lbs 3.70 - —
98-100%, passing through 325 mesh, bgs., mines 100 lbs 2.55 - —
bbls., mines 100 lbs 3.80 - —
Sulfur, rubbermakers, refd., bgs., mines 100 lbs 4.90 - —
bbls., mines 100 lbs 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs 2.75 - —
bbls., mines 100 lbs 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb .05¼ - —
ret. dms., l.c.l., same basis lb .06¼ - —
tanks, same basis lb .04½ - —
Sulfur dioxide, liq., coml., cyls., works, frt. equald lb .10 - .12
multi-unit cars, works lb .0535 - —
tanks, works lb .045 - —
Sulfur dioxide, refrigeration, cyls., dlvd lb .33 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb .05¼ - —
dms., l.c.l., same basis lb .06¼ - —
tanks, same basis lb .04½ - —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs 2.00 - —
cbys., l.c.l., works 100 lbs 2.30 - —
tanks, works ton 18.60 - —
Sulfuric acid, 66° Be, cbys., c.l., works 100 lbs 2.25 - —
cbys., l.c.l., works 100 lbs 2.55 - 3.35
tanks, works ton 22.35 - —
98% tanks, works ton 23.50 - —
99% tanks, works ton 23.70 - —
Sulfuric acid, 100%, tanks, works, ton 23.95 - —
CP, NF, consumers' cbys., c.l., frt. equald lb .12¾ - —
Sulfuric acid, CP, NF, consumers', cbys., l.c.l., same basis, lb .14¼ - .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld lb .16¼ - —
5-pt. bots., extra, cs., l.c.l., same basis lb .17¼ - .18¼
Sulfuric acid, fuming (oleum), 20%, tanks, works ton 25.00 - —
40%, tanks, works ton 29.00 - —
65%, tanks works ton 39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton .90 - .93
bulk, c.l., Carteret, N. J. unit-ton .90 - .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton 1.00 - —
bulk, f.o.b. vessel at Fla. unit-ton 1.05 - —
Sweet birch oil, USP, northern, cns lb 4.00 - 9.50
USP, southern, cns lb 2.00 - 3.05

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2,4,5-T, dms., c.l., works, frt. equald, lb 1.18 - —
dms., l.c.l., same basis lb 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb 1.24 - —
dms., l.c.l., works lb 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton 28.00 - —
bgs., l.c.l., works ton 31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton 31.00 - —
bgs., l.c.l., works ton 34.00 - —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized, bgs., c.l works ton 38.00 - —
625 mesh, micronized, bgs., c.l., works ton 80.00 - —
Talc, dom., ord., Calif., grd., bgs., c.l., works ton 34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton 19.40 - —
bgs., l.c.l., works ton 37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton 20.00 -35.00
Tall oil, crude, dms., c.l., works lb .04½ - .04¾
tanks, works lb .02¾ - .03⅛
Dist., depending on grade, dms., c.l., works lb .07 - .09¼
tanks, works lb .05¼ - .08
Tall oil, refd., depending upon grade, dms., c.l., works lb .07¾ - .08¼
tanks, works lb .05¾ - .06¼
Tall oil acids, dms., c.l., works lb .07 - .10
dms., l.c.l lb .07½ - .10⅛
tanks, works lb .05 - .07½
Tallow, edible, tanks, dlvd lb .09¼ - —
Inedible, fancy, bleachable, tanks, lb .06 - .06⅛
fancy, guaranteed, bulk, f.o.b. steamer lb .06½ - —
dms., f.a.s. lb .07½ - —
tanks, dlvd. lb .06¼ - —
Tallow, inedible, No. 1, tanks, dlvd, lb .05 - .05⅛
Prime, tanks, dlvd lb .05⅞ - —
Special, tanks, dlvd lb .05½ - .05⅝
Sulfonated, 25%, bbls., l.c.l lb .08½ - .08¾
50% bbls., l.c.l lb .10½ - .11
Tallow acids, dist., dms lb .11¾ - .14¼
tanks lb .09¼ - —
Hydrogenated, dms. lb .14 - .16½
Tallow oil, acidless, dms., c.l. lb .13½ - —
dms., l.c.l lb .14½ - .15½
Tangerine oil, Florida, dms lb 4.75 - —
Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton 4.75 - 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb lots lb 2.05 - —
bbls., smaller lots lb 2.06 - 2.07
NF, powd., bbls., 1,000-lb. lots lb 1.95 - —
bbls., smaller lots lb 1.96 - 1.99
Tech., dms lb 1.05 - —
Tansy oil, dms lb 6.60 - 8.00
Tar acid oil, 15-18%, dms., c.l., frt equald gal .53½ - —
dms., l.c.l., same basis gal .55½ - —
tanks, same basis gal .43½ - —
Tar acid oil, 25-28% dms., c.l., same basis gal .60 - —
dms., l.c.l., same basis gal .62 - —
tanks, same basis gal .50 - —
50-53%, dms, c.l., same basis gal .75 - —
dms., l.c.l., same basis gal .77 - —
tanks, same basis gal .65 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb bgs., c.l., frt. equald lb .41 - —
bgs., 10,000 lbs. 1 shipt., same basis lb .43 - —
bgs., smaller lots, same basis lb .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb fib. dms lb .70 - —
Terpineol, extra, dms lb .50 - .60
Prime, dms. lb .40 - .50
Terpinyl acetate, extra, cns., dms. lb .64 - .75
Prime, dms lb .53 - .56
Terpinyl propionate, dms. lb 1.65 - 1.70
Testosterone USP bots gram No prices.
Testosterone propionate, USP bots. gram No prices.
Tetrachloroethane, dms, works lb .14½ - —
Tetrasodium pyrophosphate (see Sodium pyrophosphate)
Tetrachloroethylene, tech. (see Perchloroethylene)
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb .20½ - —
dms., l.c.l., works lb .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb .60 - —
dms., l.c.l. dlvd. E lb .61½ - —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb .53½ - —
dms., l.c.l., dlvd. E lb .55 - —
tanks, dlvd. E lb .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb 1.04 - —
Tetrahydrofuran, dms. c.l., t.l., works lb .36½ - —
dms., l.c.l., or l.t.l., works lb .37 - —
tanks, works lb .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb .31½ - —
dms., l.c.l., Memphis, Tenn lb .32½ - —
dms., c.l., t.l., Newark, N.J lb .33½ - —
dms., l.c.l., Newark, N.J lb .34½ - —
tanks, dlvd E of Denver lb .31 - —
tanks, dlvd W of Denver lb .32 - —
Tetrahydrophthalic annhydride dms., c.l., t.l., frt. alld. E lb .39 - —
l.c.l., t.l., same basis lb .41 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd lb 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb 5.00 -10.00
Theobromine, NF, fib dms., 100-lbs., f.o.b., works lb 4.10 - 4.15
Theobromine and sodium acetate, USP, fib dms., 500-lbs. works lb 6.45 - —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works, lb 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt alld lb 3.65 - —
Thiamine hydrochloride, USP, fib. dms., frt alld kilo 36.00 - —
USP, ampule grade, fib., dms., frt alld kilo 38.00 - —
Thiamine mononitrate, USP, fib dms., frt alld kilo 36.00 - —
Thiocarbanilide, dms., ton lots lb .74 - —
dms., less ton lots lb .76 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb 5.20 - —
Tungstated, PTMA, kgs., works lb 6.20 - —
Thioglycolic acid, refd., 55 gal dms., ton lots, 100% basis lb 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb .30 - —
bgs., ton lots, same basis lb .32 - —
bgs., less than ton lots, same basis lb .33 - —
Thorium nitrate, purif., fib dms., 100-lb lots or more, works lb 3.50 - —
di-Threopine, dms., 100 kilos, works, kilo 121.00 - —
Thyme leaves, French, triple sifted extra, bgs lb .27 - —
Spanish, extra, bgs lb .12 - —
triple sifted, bgs lb .25 - —
Spanish, bgs. lb .09 - —
Thyme oil, NF, red, cns., dms. lb 2.00 - —
NF, white, cns lb 2.20 - —
Tech., white, cns. lb .40 1.85
Thymol, fib dms., 25-lbs., f.o.b. works lb 2.45 - —
Thymol iodide, NF, dms, 100-lbs. f.o.b. works lb 7.30 - —
Timbo root (see Cube root).

FOR A TRULY
MULTI-PURPOSE
WHITE PIGMENT
SPECIFY

TITANOX*-RA-50

TITANOX-RA-50—the rutile titanium dioxide pigment—is *doubly* versatile. Not only is it a favorite for many different types of coatings, but also for finishes that must perform multiple services. For example, many industrial product finishes must retain their good appearance and durability both indoors and outdoors. TITANOX-RA-50 helps them do just that.

This truly multi-purpose white pigment is a favorite because of these outstanding characteristics:

- **fast wetting**
- **extreme fineness of grind**
- **high whiteness**
- **reduction of after-yellowing of vehicles**
- **high resistance to chalking, without significant loss of tint clarity.**

These qualities make TITANOX-RA-50 ideal for whitening, brightening and opacifying:

- **Paints . . . water emulsion paints and coatings, interior-exterior enamels, industrial finishes of all types, white and tinted exterior house paints, porch and deck enamels and maintenance paints.**
- **Paper . . . particularly latex and other types of coatings to be used for containers, wrappers and packages.**
- **Plastics . . . especially vinyl sheeting and floor coverings.**

Our Technical Service Department is always glad to help you with your pigmentation problems. There's a TITANOX pigment for anything that needs whitening, brightening or opacifying. Titanium Pigment Corporation, 111 Broadway, New York 6, N. Y.; offices and warehouses in principal cities. In Canada: Canadian Titanium Pigments, Ltd., Montreal.

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TITANOX
the brightest name in pigments

TITANIUM PIGMENT CORPORATION
Subsidiary of NATIONAL LEAD COMPANY

Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) ..... lb. 1.02 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.)
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd lb. 25½ -
bgs., l.c.l., dlvd. ..... lb. 26½ —
reg., bgs., c.l., dlvd. ..... lb. 25½ —
bgs. l.c.l. dlvd. ..... lb 26½ —
metallurgical, nat., bgs., c.l., f.o.b Jacksonville Fla. ton 180.00 —
bgs., 5-ton lots, Niagara Falls, N. Y ton 205.00 —
bgs., ton lots, same basis ton 215.00 —
Milled metallurgical titanium dioxide $7.50 per ton higher
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd E lb 27½ —
bgs. l.c.l. dlvd E lb. 28½ —
Titanium dioxide-calcium pigment, 30% Ti O2, reg., bgs., c.l., dlvd lb. 09⅜ —
bgs., l.c.l. works lb 09⅞ —
50% Ti O2, high-tinting, dms. c.l., lb. .14⅜ —
dms. l.c.l lb. .14⅞ —
Titanium hydride, powd., dms., works lb 8.10 9.00
Titanium tetrachloride, tech., dms., c.l., works lb .26 —
dms., l.c.l., works lb 27½ - .29
tanks, works lb .20 —
Tobias acid, dms., c.l., t.l. ..... lb. .81 - —
dms. l.c.l. ..... lb. .84 - —
d-a-Tocopherols, NF, mixer, conc., pure basis bots kilo. 67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo. 122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo. 109.00 —
dl-a-Tocopherol bots. kilo. 99.00 —
dl-a-Tocopheryl acetate, bots kilo. 90.00 —
25% dry. powd., bots kilo. 22.50 - 24.00
33⅓ dry powd. bots. kilo. 30.00 - 31.50
o-Tolidine base dry, kgs., 100% basis lb 1.55 —
Paste, kgs., 100% basis lb 1.50 —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine hydrochloride paste, kgs., 100% basis lb. 1.50 —
Tolu balsam, cns. lb. 3.50 - 3.65
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25 - —
Toluene, petroleum indust., tanks, f.o.b., frt. equald gal. .25 - —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms., l.t.l., same basis lb. .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb .16 - —
1,000-lb or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms., 2c per lb. more.
p-Toluenesulfonic acid mononydrate, dms., c.l., or t.l lb. .90 - —
dms., 125 lbs. to t.l. lb. 1.00 - —
m-Toluidine, dms. c.l., works, frt. alld lb. .83 - —
dms., c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb .30 - —
dms., l.c.l., same basis lb .31 - —
tanks, same basis lb. .28 - —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld. lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs. works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 - —
Tonka beans, Angostura, cks. lb. 1.50 - —
Brazilian, Surinam, cs. lb. 1.30 - —
Totaquine, 100-oz. lots, cns. oz. .42 - —
Toxaphene, dms., c.l., t.l., works. lb. .22 - —
dms., l.c.l., l.t.l., works lb. .28 - —
Tragacanth gum, No. 1, ribbons, cs lb. 4.10 - 4.20
No. 2, cs. lb. 3.75 - 3.80
No. 3, cs. lb. 3.40 - 3.65
USP, powd., bbls. lb. 1.05 - 1.15
Triacetin dms., c.l., dlvd. E. of Rockies lb. .39 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .37 - —
Triallylamine, dms., c.l., dlvd. lb. .985 - —
dms., l.c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver. lb. .42½ - —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½ - —
tanks, frt. alld. E of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works. lb. .52½ - —
dms, l.c.l., same basis lb. .53½ - —
tanks, same basis lb. .50 - —
Tributylamine dms., c.l., works lb. .67½ - —
dms., l.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin dms l.c.l. dlvd lb. .69 - —
Trichloroacetic acid, tech., 300-lb. dms. c.l., f.o.b. works lb. .52 - —
USP, 100-lb. dms., frt. equald lb. 1.25 - —
Trichlorobenzene dms. c.l., frt alld. E lb. .15 - —
dms., l.c.l. frt. alld. E. lb. .16 - —
tanks, frt. alld. E. lb 13¼ - —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼ - —
dms., l.c.l., dlvd lb. .16 - —
tanks, dlvd lb. .12¼ - —
1,1,2 Trichloroethane, dms., c.l., works lb. .13½ - —
dms., l.c.l., dlvd E lb. .14½ - —
tanks, works lb. .11½ - —
Trichloroethylene dms., c.l., or t.l., dlvd lb. .14 - —
dms., l.c.l., dlvd. lb. .15¼ - —
tanks dlvd lb. .12¾ - —
Trichloroisocyanuric acid dms., c.l., t.l., frt. equald lb. .65 - —
dms, l.c.l. same basis lb .75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. chys., works, frt. adjusted. lb. 1.40 - 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd lb. .32½ - —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks dlvd lb. .32½ - —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E lb. .26½ - —
dms., l.c.l., dlvd. E lb. .28 - —
tanks, dlvd. E lb. .24 - —
Triethanolamine, dms., c.l., dlvd. E lb 24¼ - —
dms., l.c.l., same basis lb. .26 - —
tanks, same basis lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb 25½ - —
dms. l.t.l. frt. alld. lb. 26½ - —
tanks, frt. alld. lb. 24½ - —
Triethylamine, dms., c.l., dlvd E lb. .50 - —
dms., l.c.l., same basis lb 51½ - —
tanks, same basis lb. 47½ - —
Triethyl nitrate, refd., tech., non-ret. dms. c.l., frt alld E of Denver lb 46¼ - —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. 47¼ - —
tanks frt alld E of Denver. lb. 43¾ - —
Triethyl phosphate, dms., c.l., dlvd. lb. 40½ - —
dms., l.c.l., dlvd. lb. .42 - —
tanks, dlvd lb. .38 - —
Triethylene glycol, dms., c.l., dlvd E lb .21 - —
dms., l.c.l., dlvd, E lb 22½ - —
tanks, same basis lb 18½ - —
Triethylenetetramine, dms., c.l., dlvd. E lb .51½ - —
dms. l.c.l., dlvd E lb .53 - —
tanks, dlvd E lb .49 - —
Triisobutylene, tanks, dlvd. lb .08 —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. 23¼ - —
dms. l.c.l., dlvd. E lb. 24¾ - —
tanks, dlvd E lb. 20¾ - —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 .305
tanks frt equald, 100% basis. lb. .26 - —
25-40% soln. dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½ - —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .35 - —
dms., l.c.l., l.t.l., same basis lb. .36 - —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. .51½ - —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E lb. .34 - —
bgs., l.c.l., l.t.l., dlvd. E lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½ - —
bbls., l.c.l., frt. equald lb. .43½ - —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene dms., c.l., dlvd. E gal. .44 - —
dms., l.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½ - —
dms., l.c.l. t.l.t. frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt alld E lb. .17½ - —
Tripropylene glycol, tankwagon and compartmented tankwagons, 1,000 gals. min. frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic)
di-Tryptophane, dms., 1 kilo, works. kilo. 154.00 - —
Tung oil, dms., New York ..... lb. .24¼ - .24¾
tanks, imported lb. .22¼ - 22½
tanks, domestic mills ..... lb. .22½ Nom.
Tungsten metal, powd., 2.0-2.5 microns, dms., works ..... lb. 4.25 - —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb 2.23 - —
dms., smaller lots, works lb 2.45 - —
Turkey red, bbls., works ..... lb. .62 —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb 28 50
Tuscan red, bbls., frt. equald lb 26 32
Tyrothricin, USP, 1 to 5 kilos, gram. .50 - —

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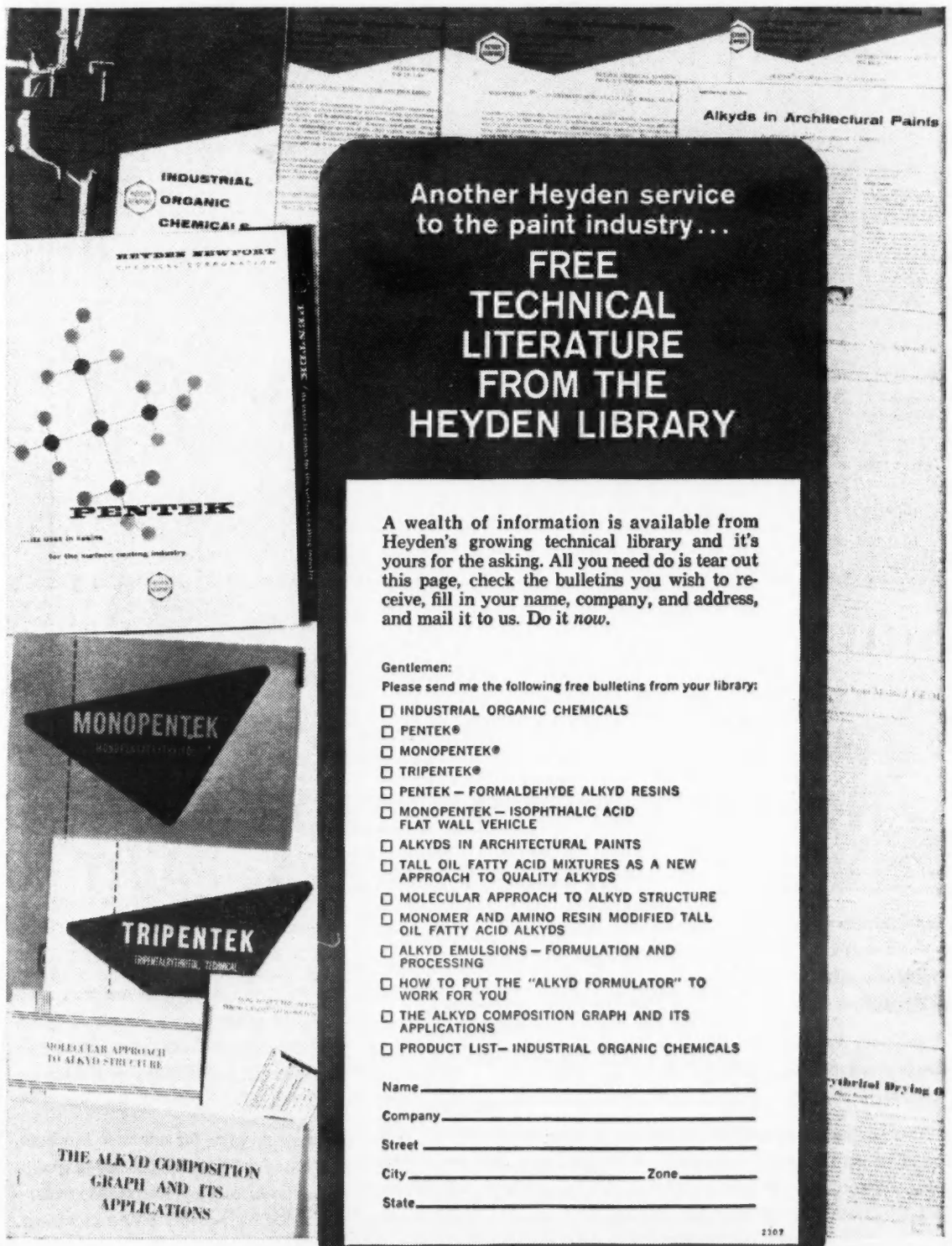
Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .30½ - .35
Jobbing types, dry, bbls., same basis lb. .16 - .22½
Regular types, dry bbls., same basis lb. .16 - .37½
Ultramarine blue prices 1c. higher W of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½ .07¾
bgs., l.c.l., works lb. .07¾ - .08
Umber pigment, burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y lb. .08¼ - —
Raw, American, bgs., works lb. .07¾ - .08¼
Turkey-type, bgs., works lb .08½ - .08¾
Undecylenic acid, 55-gal. dms., f.o.b. works lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).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☐ PRODUCT LIST— INDUSTRIAL ORGANIC CHEMICALS
Name
Company
Street
City Zone
State
2307
FINE HEYDEN CHEMICALS
HEYDEN CHEMICAL DIVISION
Heyden Newport Chemical Corporation
342 Madison Avenue, New York 17, New York

Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E. ton 98.00 - —
bgs., l.c.l., dlvd. E ex whse ton 100.00 - —
45% N, agricultural, bgs. c.l., (30 tons) dlvd. E. ton 100.00 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton 120.00 - —
37 grade, tanks, same basis ton 145.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb .65 - —
dms., l.c.l., same basis lb .70 - —
Uva-ursi leaves, bls lb .12 - —

V

Valerian root, Belgian bgs. lb .32 - —
Indian, bgs. lb .25 - —
dl-Valine, dms., 1 kilo, works kilo 37.00 - —
Vanadium pentoxide, tech., dms., works lb 1.38 - —
Vandyke brown, bbls., works lb .09½- .12
Vanilla beans, Bourbon, tins lb 8.00 - —
Mexican cuts, tins lb 8.00 - —
whole, tins lb 9.00 - —
Vanillin ex lignin, 100-lb. fib. dms., 2,000-lb. lots or more lb 3.00 - —
less than 2,000 lbs lb 3.20 - 3.30
Venetian red, jobbing, bgs., works, lb .0475- —
Venetian red, 20%, bgs., works lb .0523- —
25%, bgs., works lb .0575- —
30%, bgs., works lb .06 - —
35%, bgs., works lb .0625- —
40%, bgs., works lb .0675- —
Vetiver oil, Bourbon, cns lb 17.00 -17.25
Haitian, cns. lb 12.00 -14.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb 4.50 - 4.95
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies lb 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd. lb .1810- —
55-gal. dms., l.c.l., dlvd lb .1960- —
tanks, dlvd. lb .1560- —
tanktrucks less than 4,000 gal., dlvd. lb .1610- —
Zone 2, 55-gal. dms., c.l., dlvd. lb .1910- —..
55-gal. dms., l.c.l., dlvd lb .2210- —
tanks, dlvd. lb .1660- —
tanktrucks, less than 4,000 gals., dlvd. lb .1710- —
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb .50 - —
Vinyl chloride monomer, tanks, works, min. frt. alld. E. of Rockies lb .113 - —
Vinyl ether, USP, anethesia, bots., 50cc., hospitals bot 1.12 - —
bots., 75cc., hospitals bot 1.56 - —
Vinyl ethyl ether, tech., dms., c.l., works lb .30¼- —
dms., l.c.l., works lb .31 - —
tanks, works lb .28¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb .49 - —
dms., l.c.l., same basis lb .50 - —
tanks, same basis lb .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb 1.20 - —
1 to 9 dms., works lb 1.35 - —
tanks, works lb 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., works lb .16½- —
dms., l.c.l., same basis lb .18½- —
tanks, f.o.b. dest. frt. prepaid lb .14 - —
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units .02½- —
Virginia type red, bbls., works lb 1.40 - —
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram gram .07¼- —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo 65.00 - —
325,000 units per gram, same basis kilo 43.88 - —
250,000 units per gram, same basis kilo 33.75 - —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .09½- —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .09½- —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram 45.00 - —
0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo dms gram 1.00 - —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms., gram 1.00 - —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B^{12} activity gram 52.00 - —
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo 52.00 - —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin 500-gram bots., 1-5 kilo, dms. frt. alld gram .90 - —
0.1% cobalamin concentrate in gelatin 1-10 kilo dms., frt alld gram .90 - —
Vitamin C (see Ascorbic acid).
Vitamin D, (see Codliver and Fishliver oils, Calciferol and Viosterol)
Vitamin D dry, 850,000 units per gram, kilo lots kilo 42.50 —
850,000 units per gram less than kilo lots kilo 45.00 —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione)
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha VM&P petroleum).

W

Wahoo root bark, bls. lb 2.00 2.25
Warfarin, 0.5% dms., 50-lb. lots, dlvd lb 1.95 —
dms. 25-49-lb. lots, New York or Chicago lb 2.05 - —
dms., 5-24-lb lots, New York or Chicago lb 2.15 - —
Watchung-type reds., bbls lb. 1.95 - —

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. gal. 12.25 - —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. lb .21 - .23
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works lb 5.50 - —
Whiting (see Calcium carbonate)
Wild cherry bark, thin, nat., bls lb. .30 - —
Wintergreen oil, USP nat. northern, cns lb 6.35 -17.50
USP, nat. southern cns lb 3.75 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls lb. .30 - .35
Witch hazel leaves, bls lb. .55 - .75
Wollastonite, fine, paint grade, bgs., c.l., works ton 41.00 - —
bgs., l.c.l., ex whse ton 51.00 - —
Medium, paint grade, bgs., c.l., works ton 29.00 - —
bgs., l.c.l., ex whse. ton 39.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs lb 2.50 - —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns. lb 4.75 - —

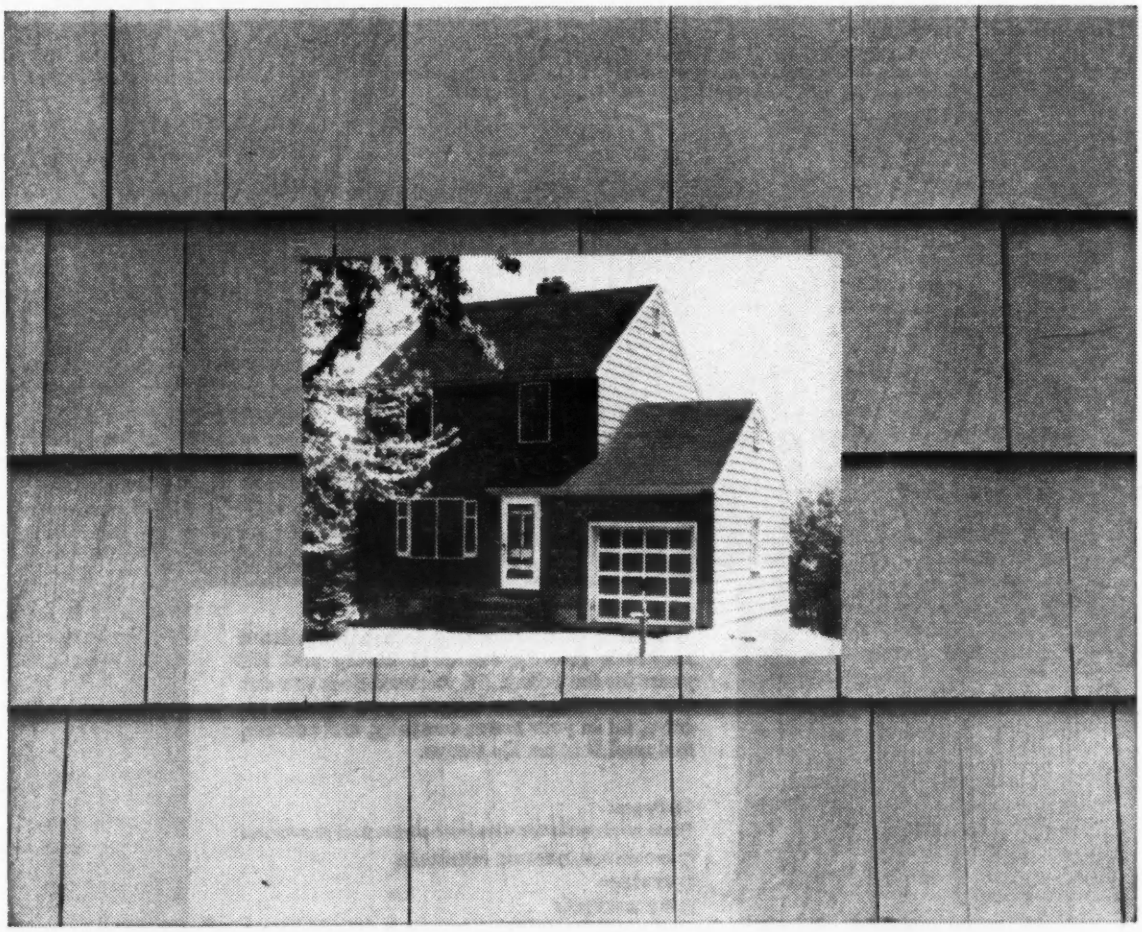
X

Xylene coaltar, indust., tanks, works:
Bethlehem, Pa. gal .29 - —
Birmingham dist. gal .29 - —
Chicago dist. gal .28½- —
Cleveland dist. gal .29 - —
Geneva, Utah gal .29 - —
Johnstown, Pa. gal .29 - —
Lackawanna, N.Y. gal .29½- —
Lone Star, Tex. gal .27 - —
Lorain, Ohio gal .29 - —
Middletown, Ohio gal .30 - —
Xylene, coaltar, indust., tanks, works:
Minnequa, Col. gal .29 - —
Philadelphia dist. gal .29 - —
Pittsburgh dist. gal .29 - —
Sparrows Point, Md. gal .29 - —
Terre Haute, Ind. gal .29 - —
Youngstown, Ohio gal .29 - —
Xylene, petroleum, indust., tanks f.o.b. works:
Bayonne, N. J. gal .29 - —
Baytown, Tex. gal .27 - —
Charleston, S. C. gal .29 - —
Chicago, Ill. gal .28½- —
Detroit, Mich., dlvd. gal .27½- .29
Houston, Tex. gal .27 - —
Philadelphia, Pa. gal .29 - —
Providence, R. I. gal .30 - —
Sewell's Point, Va. gal .28 - —
Wood River, Ill. gal .28½- —
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif lb .25 - —
dms., l.c.l., f.o.b., Richmond, Calif lb .26 - —
tanks, frt. alld. lb .23 - —
o-Xylene, dms., c.l., works lb .08 - —
dms., l.c.l., works lb .09 - —
tanks, works lb .06 - .06½
p-Xylene, dms., c.l., works lb .20 - —
dms., l.c.l., works lb .21 - —
tanks, frt. alld. lb .1645- —
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald lb .23 - —
56°-58°C., m.p., dms., l.c.l., works, frt. equald lb .33 - —
Xylenol, cryst., 60°-62°C., m.p., dms., l.c.l., same basis, lb .40 - —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal 1.25 - —
dms., l.c.l., same basis gal 1.30 - —
tanks, same basis gal 1.05 - —
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis, gal 1.35 - —
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., l.c.l., same basis gal 1.40 - —
2,4-Xylidine, tech., dms., frt. alld. lb 1.15 - —
2,5-Xylidine, tech., dms., frt. alld. lb 1.20 - —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb .39 - —
dms., l.c.l., same basis lb .40 - —
tanks, same basis lb .33 - —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. lb 2.15 - 3.03
Yeast, brewers, debittered, USP XV, Saccharomyces, dlvd lb .27 - —
Yeast, brewers, primary, USP XV, 150 meg. B^1 per gram, 100-lb. dms lb .47 - —
USP XV, 270 mcg., B_1 per gram, 100-lb. dms. lb .53 - —



THE COLOR WON'T FADE WHEN IT'S PVAc PAINT

Tint retention is difficult to show in a photograph. But a single coat of phthalocyanine blue polyvinyl acetate copolymer paint applied to these shingles of the house shown in the inset hasn't faded noticeably after four years.

Take our word for it . . . or, if the location's not too far, take a look yourself. The house is at 11 Garfield Ave., Madison, New Jersey.

You get such lasting clean, bright colors when you formulate exterior paints with PVAc copolymer emulsions. At normal PVC levels, these paints dry rapidly to a tough, flexible film that remains tack-free. Hence, there's no dirt pick-up—whites stay white without chalking . . . colors don't fade.

You'll also find PVAc paints easy to make . . . less costly to produce than other exterior emulsion types. Ask your copolymer supplier to show you exposure data for different PVAc systems, and to help you develop the best formula for your area.

For more information, write for our new brochure, "PVAc for Quality Exterior Paints." We'll also be glad to send you information on Airco Vinyl Acetate Monomer—the starting material for high-quality PVAc emulsions.

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Represented Internationally by Airco Company International

Yeast, brewers, primary, USP, XV, 300 mcg., B_1 per gram, 100-lb. dms.	lb.	.58	—
USP XV, 900 mcg., B_1 per gram 100-lb. dms.	lb.	.60	—
Torula, USP dlvd.	lb.	.18	—

YELLOW PIGMENTS

Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow

Yerba santa leaves, bls.	lb	.46	.45
Ylang-ylang oil, Bourbon, bots	lb.	7.00	22.00
Ylang Ylang oil, Bourbon, extra bots	lb.	24.00	33.00
Yohimbine hydrochloride, bots, tins	oz.	3.75	4.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs. 500-lb lots or more, dlvd	lb.	.343	—
bgs. smaller lots, dlvd	lb	.373	—
Zinc acetate, NF, VIII, dms	lb.	.53	—
Tech., dms., t.l., works	lb.	.29¾	—
Zinc borate bgs., 1,000 lbs or more, works	lb.	.25	—
bgs. less than 1,000 lbs., same basis	lb	.27	—
Zinc chloride, NF, gran., dms	lb.	.42	—
NF precip., powd., dms	lb.	.26	—
Tech., soln. 50%, dms., c.l., works 100 lbs		5.80	—
dms., t.c.l., works 100 lbs		6.40	—
tanks, works 100 lbs		5.15	—
fused dms. c.l. works 100 lbs.		10.70	—
dms., t.c.l. works 100 lbs.		11.20	—
gran., fib dms. c.l., works 100 lbs.		11.45	—
fib dms. t.c.l. works 100 lbs.		11.95	—
Zinc chromate bbls., dlvd	lb	.29	—
Basic bbls. dlvd	lb	.34	—
Zinc cyanide dms., 1,000-lb. lots or more, works	lb.	.55	—
dms. smaller lots, works	lb	.57	—
Zinc dust coml. bbls. c.l. works.	lb.	.17	—
Pigment, bbls., c.l., works	lb.	.16½	—
bbls. t.c.l. works	lb.	.18¼	—
Zinc fluoride, bbls. works	lb	.49	.50
Zinc hydrosulfite, dms. c.l., frt. alld	lb.	.21½	—
dms. t.c.l. frt. alld	lb.	.23½	—
Zinc metal prime western slabs, E. St. Louis	lb	.13	—
Prime western slabs, New York	lb.	.13½	—
Zinc naphthenate liq 8% Zn., dms., frt. alld	lb.	.27	—
10% Zn., dms., frt alld	lb.	.33	—
Zinc nitrate, tech., flake, 100-lb. fib. dms., t.c.l.	lb.	.16½	—
300-lb. fib. dms. t.c.l	lb.	.14½	—
300-lb. fib. dms., c.l.	lb.	.14	—
Zinc oxide pigment, American process, lead-free bgs c.l., frt. alld	lb	.14½	—
bgs. t.c.l., 10 tons or more, same basis	lb.	.15	—
bgs., t.c.l., smaller lots, same basis	lb.	.15½	—
Zinc oxide, leaded, 35% bgs., c.l., mills, frt. alld	lb.	.15⅜	—
bgs. t.c.l. 10 tons or more, same basis	lb	.15⅞	—
50%, bgs., c.l., same basis	lb.	.15¾	—
pigment, American process, leaded, 50% bgs., t.c.l. 10 tons or more, same basis,	lb.	.16¼	—
French process, green seal, bgs., c.l., mills frt alld	lb.	.16¼	—
bgs. t.c.l. 10 tons or more, same basis	lb.	.16¾	—
Zinc oxide, French process, green seal bgs., t.c.l., smaller lots, same basis	lb.	.17¼	—
red seal, bgs c.l., same basis,	lb.	.15¾	—
Zinc oxide, French process, green seal, bgs., t.c.l., 10 tons or more, same basis	lb.	.16¼	—
bgs. t.c.l. smaller lots, same basis	lb.	.16¾	—
Zinc oxide, white seal, bgs., c.l., same basis	lb.	.16¾	—
bgs., t.c.l., 10 tons or more, same basis	lb	.17¼	—
bgs., t.c.l., smaller lots, same basis	lb	.17¾	—
Zinc oxide, USP dms., c.l., frt alld,	lb.	.18¼	—
dms., t.c.l., 10 tons or more, same basis	lb	.18¾	—
dms., t.c.l., smaller lots, same basis	lb.	.19¼	—
Zinc phenolsulfonate, NF gran., dms	lb.	.45	.46
NF powd. dms.	lb.	.48	.49
Zinc resinate, precip 7.2-7.6% Zn., dms., frt. alld	lb.	.45	—
Zinc silicofluoride dms. works	lb	12½	.14
Zinc stearate, USP, ctns., c.l.	lb.	.41	—
ctns. t.c.l.	lb.	.41	.46
Zinc sulfate powd., monohydrate, 36% Zn, bgs. c.l. dlvd.E.	100 lbs.	8.75	—
bgs. t.c.l., dlvd. E	100 lbs.	9.75	—
Zinc sulfate in bbls 40c higher.			
Zinc sulfide pure bgs. c.l. dlvd	lb.	.2530	—
Zinc undecylenate, 75-lb. fib. dms., f.o.b works	lb.	2.04	—
Zinc, yellow (see Zinc chromate)			
Zinc-ammonium chloride, bgs., c.l., works	100 lbs.	10.25	—
bbls., c.l., works	100 lbs.	10.85	—
bbls. t.c.l. works	100 lbs.	11.35	—
Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld	lb.	.26	—
Normal, 250-lb. dms., frt. alld	lb.	.55	—
Zircon (G) gran. bgs. c.l. works.	lb.	.03½	—
Zircon (G) gran., bgs., 5 tons to c.l., works	lb.	.03⅜	—
bgs., 1 ton to 9,999-lb lots, works	lb.	.04	—
bgs., smaller lots, works	lb.	.06½	—
Zircon (G) milled, bgs. c.l. works.	lb.	.04½	—
bgs., 5 tons to c.l., works	lb.	.04⅜	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04⅝	—
bgs., 500-1,999-lb lots, works	lb.	.07½	—
Zircon (G) in barrels 1c higher			
Zirconium acetate soln. 13% ZrO_2, dms. c.l. 30,000 lbs min., works	lb.	.23	—
Zirconium hydride powd. electronic grade, dms. works	lb.	14.00	15.00
Zirconium oxide, CP, white grd., bbls or bgs. works	lb.	1.50	—
Electric-fused lump, bgs. 500 to 1,999-lb lots, works	lb.	.48½	—
bgs., smaller lots, works	lb.	.51	—
milled bgs. c.l., works	lb.	.62	—
bgs., 5-ton lots, works	lb.	.62½	—
bgs., 1-ton to 9,999-lb lots, works	lb.	.63½	—
bgs., 5 to 1,999-lb lots, works	lb.	.64	—
bgs., smaller lots, works	lb.	.66	—
Zirconium Oxide.			
Glass polishing grade, 94-97% ZrO_2, bgs., works	lb.	.55	.65
Opacifier grade 85-90% ZrO_2, bgs.,	lb.	.27	.50
Stabilized oxide 91% ZrO_2, milled, bgs	lb.	.62	.85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works	lb.	.37½	—

ICA Dollars Coming Home to the Chemical Industry

—Continued from page 3

$61,606,000 of chemicals and related products, exclusive of fertilizers, fats and oils and petroleum. US chemical suppliers got only 29 percent of this business.

In the case of fertilizers amounting to $54,998,000, all but 17 percent was spent abroad. Little more than half (57 percent) of the petroleum purchases were from foreign suppliers; only US fats and oils suppliers had no complaint. Less than one-half of 1 percent of the $38,993,000 financed by ICA was spent abroad.

The Big Nineteen

Purchases of these commodity groups were made in almost all instances from one or more of the nineteen places posted by the State department as now being no longer eligible sources of supplies which are financed by ICA dollars. These are: Australia, France, Germany, Italy, Hong Kong, Japan, Luxembourg, Monaco, The Netherlands, New Zealand, Norway, Union of South Africa, Sweden, Switzerland, and the United Kingdom.

These countries have been cut off from participating in the ICA program because their dollar reserves and gold stocks have reached the point where the US feels no longer obligated to extend aid in the light of its own financial difficulties. Instead under-developed countries receiving aid money from the US will have to spend it in other under-developed countries or in the United States.

ICA has been reviewing its dollar spending abroad on a case-by-case basis since the November 17 general notice of the White House that overseas expenditures be examined to curb the flow of gold from the country.

One area where the new order may have an important effect is in the case of ICA-financed drug purchases, both in connection with the anti-malaria eradication program of WHO and health needs generally.

Two drugs purchased in rather large quantities in connection with the anti-malaria program are primaquine and chloroquine phosphate. France and England have been the sole sources of supplies of these drugs, ICA officials revealed, because US suppliers have shown no interest in making offers. These may now have to be purchased in the US.

The other big item in the anti-malaria program—DDT—is of no concern in connection with the new State department order. All of the DDT used in this program and financed by ICA is obtained from US sources.

This year's program involves about 55 million pounds of the insecticide, of which 17 million pounds have already been bought. Invitations for the remaining 38 million may be issued soon.

Drug Men Have Big Interest

As regards drug purchases for other than the antimalaria program, the US drug industry has a big interest in the State department's order. ICA figures for fiscal 1960 show the agency financed purchase of $26,279,000 of medicinal and pharmaceutical preparations in that year of which 75 percent involved off-shore procurement. Antibiotics and cortisone products were the big items.

6 ways
to meet
the exact requirements
of your
exterior paint formulations

AZO leaded ZINC OXIDES

TYPE		AZO 50-L	AZO 35-L	AZO 35-M	AZO 18-L	AZO 18-L-S	AZO 12-L
		Cofumed	Cofumed	Blended and Acicular	Cofumed and High Basicity	Blended and Acicular	Cofumed
Consistency in Paint		Low	Low	Medium	Low	Medium Low	Low
Specific Gravity		5.95	5.85	5.85	5.75	5.75	5.70
Weight Per Solid Gallon (Pounds)		49.56	48.73	48.73	47.90	47.90	47.48
One Pound Bulks (Gallons)		0.02018	0.02052	0.02052	0.02088	0.02088	0.02106
Per cent Zinc Oxide (Approximate)		50	65	65	82	82	88
Per cent $PbSO_4$—PbO (Approximate)		50	35	35	18	18	12
Per cent Basicity (Expressed as Lead Oxide-PbO)		12–14	6.5–8.5	6.0–7.5	7–7.5	6–7	0.5–1.0
Specifications	ASTM	D80–41	D80–41	D80–41	D80–41	D80–41	D80–41
	Federal		TT-Z-321a	TT-Z-321a			

The properties you want most in your exterior paints can begin right here . . . with the AZO leaded zinc oxides you need for durability and mildew resistance in your primers and top coats.

AZO cofumed leaded zinc oxides have excellent mixing and dispersion qualities and produce the lowest consistency in paint. AZO blended type leaded zinc oxides generally give higher consistency and improve color. Both types have uniform consistency within grades—help minimize mixing problems in your plant.

To meet your exact requirements, specify AZO brand zinc oxides: leaded, lead-free . . . and the exclusive de-aerated AZODOX form.

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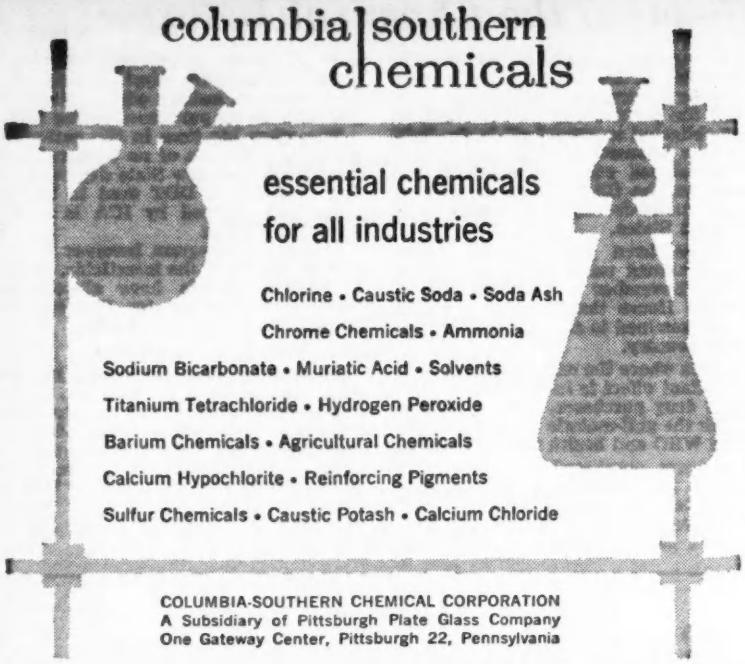

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Heavy Chemicals

The cross-fire of competition lights up even the most obscure areas of the chemical market. A look at the record shows, however, that price cuts have been almost totally lacking during the market scramble of recent months, and producers affirm their intention to hold the line even as the inventory broom sweeps clean towards year's end and economists approach unanimity in predicting a business downturn in early 1961. The rugged terrain of today's market would probably weaken price levels, one trade source said, if that were possible. But the profit squeeze affecting the whole diapason of chemical production almost precludes use of the cutting weapon, rendering it suicidal in some cases, it was said.

Figures from the Bureau of Census depict a strong October production level in basic chemicals. Chlorine output totaled 390,697 tons as against 371,058 the month before.

Production of soda ash is reported at 383,612 tons in October as compared with 364,756 tons in September.

Producers of caustic soda, Census notes, turned out 410,101 tons of the material, as against only 388,915 the month before.

Acid output was also higher, hydrochloric at 84,211 tons, as against 78,391; nitric hitting 288,004, up from 281,001; and sulfuric hitting a brisk 1,489,433, as against only 1,350,000.

Impelled by the plant food build-up, phosphoric acid production reached 183,353 tons, up from 165,253 in September.

Prices of technical and anhydrous sodium phosphate will be advanced fifteen cents a hundred pounds across the board, effective January 1. The boost is attributed to higher cost of labor and containers. It appears to be going industrywide.

The American Paper and Pulp Association reported production for the week ended Dec. 3, at 93.0 percent of theoretical capacity, as compared with the revised figure of 85.8 percent for the previous week and 95.9 percent for the corresponding week of last year.

Acids

Chromic—Buttressed by continued prosperity of the automotive industry, this market to date has suffered only minor effects from the rippling recession, which has spread inexorably from its center in steel.

Hurt has been felt along the East Coast, where appliance makers, chief chromic consumers of the area, have pulled in their horns against a downturn of retail sales.

Hydrochloric—"Pinched but not really hurt" is the way hydrochloric makers depict their position in respect to the economic downturn.

With a broadly-based end-use pattern, which includes such strong points as food and chemicals processing, the acid is expected to weather this storm, closing the current year with a sales rise over last, turning in a fair performance during early '61 and coming into its own later in the year, trade sources say.

Hydrofluoric—Various chemical outlets are standing firm, ordering hydrofluoric amply, but metal-treating consumers look worried, according to word in the trade.

Sulfuric—Nothing new to report in price patterns or business volume, both holding tenaciously at current levels in the teeth of ruggedly competitive conditions.

Steel output, now become a surly bellweather, was scheduled to decline again last week. American Iron & Steel Institute's advance estimate tabbed it at 1,376,000 net tons, or 48.3 percent of capacity, down from the previous week's actual total of 1,393,000 tons, or 48.9 percent of capacity.

A month ago, the institute recalls, output totaled a healthier 1,468,000 tons; a year ago it was rollicking along at 2,732,000 tons as the industry moved blindly to offset its strike-incurred deficit.

Bases and Salts

Alum—Paper makers, following their traditional pattern, have reduced production schedules with approach of year's end, and most other alum users are similarly watching inventory. The market has consequently lost some of its zip.

Price Trends

Advanced
None

Reduced
Tin metal, Straits, 1c. per lb.
Salts, ½ to ⅝c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 4, 1959
106.82	106.83	106.84	103.56

For Current Prices see page 11

Borax—A general slackening has started to manifest itself. Two factors are at work here. One is the traditional pattern of year's end inventory cutting, and the other the economic recession.

That the market is managing to hold its own against these powerful downward influences offers proof of its basically sound and progressive character, one trade source said. This character he attributed to a host of expanding outlets and new uses.

Caustic Soda—It would be an exaggeration to say that rayon makers find themselves at bay in the tire cord market, one trade source volunteered, but enough ground has been lost to presage ill. If rayon loses out, caustic loses proportionally, this source added.

Chlorine—Prices were advanced last spring to offset accumulating cost increases, a boost made possible by chlorine's enviably strong position vis-a-vis other bases and salts, and have since held steady.

Lime—It goes without saying, one trade source said, that plants serving the steel industry are finding themselves behind the eight-ball. Those shipping to chemical makers and the plant food industry, in contrast, have maintained a fair volume of business.

Sodium Phosphate—Prices will be advanced 15 cents per 100 pounds across board, effective January 1. The move, affecting all technical and anhydrous grades, is attributed to higher cost of labor and containers. The boost has been confirmed by several producers and appears likely to be industrywide.

Sodium Sulfate — The downturn of rayon production has firmed up this market by reducing the availability of by-product sodium sulfate, sources in the trade points out.

Nonferrous Metals

Antimony—Output of primary antimony increased to 3,153 tons in the third quarter, from 2,719 in the second, but domestic use declined, the Bureau of Mines reports.

Primary production during the first three quarters of the year ran 12 percent above the comparable period of last year, Mines notes.

Consumption in the second quarter was tallied at 3,000 tons, down 200 tons from the preceding period. The sharpest decrease was in antimonial lead consumption.

A small increase in imports during the quarter helped put the total for the first nine months 19 percent above the like period of 1959, Mines notes.

All stocks increased, totaling 7,216 tons at month's end, the highest point reached, says Mines, since the end of 1958.

Copper—Copper production at mines in the US totaled 97,900 tons in September 1960, the Mines Bureau reports. This was 8 percent more than in August and 11 percent more on a daily average basis, the Mines people point out.

Output in Utah rose 78 percent, a striking advance, but easily explained by the resumption of full work schedules following vacations in August.

Smelter and refinery production from domestic and foreign primary materials rose 12 to 3 percent, respectively. Refined copper output from secondary materials by primary and secondary plants gained 8 percent, adds Mines.

In the first nine months of 1960 smelter production from primary sources was 17 percent greater than in the same

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Heavy Chemicals

period of 1959. And refinery production from similar materials rose 14 percent.

Imports of unmanufactured copper dropped 34 percent in September and except for May and July were the lowest of the year. Receipts of refined copper fell 14 percent and those of the blister class 49 percent. Exports in the period were more than double shipments in the like period a year ago.

Stocks of refined copper at primary producers plants rose 4 percent to 60,000 tons, the largest since a year earlier.

Purchased copper-base scrap consumed in the US in September totaled 90,900 tons, 5 percent more than in August, the Bureau of Mines reports.

Mercury—Industrial use of mercury declined to 9,700 tons in the third quarter of 1960, down 26 percent from the preceding period, the Bureau of Mines reports. Mines adds that this was the lowest total reached since the fourth quarter of 1957.

Mine output of mercury during the quarter rose to 8,250 flasks, up 8 percent from the second period, but output of secondary mercury fell 17 percent, Mines notes.

Imports were 35 percent less than in the preceding quarter, and except for the first quarter of 1960, were the lowest since April-June, 1958, the Mines people go on to report.

Stocks at consumers and dealers rose 8 percent to the highest since the close of the same period in 1958, the report from Mines notes in conclusion.

Quotations were maintained last week at the long-prevailing range of $209 to $212 a flask, large lots, prompt shipment.

Tin—With consumer interest declining, Straits metal lost 1c., closing on Friday at $1.02 a pound, spot.

Zinc—Production of zinc in November declined to 60,841 tons from 63,005 the month before, the American Zinc Institute reports.

Domestic shipments, AZI adds, totaled 56,981 tons, down from 58,572 in Otcober. A sharp boost in overseas shipments (6,605 as against 2,931) drove the overall consumption total to 68,980 tons, up from 65,183 in November.

Stocks were happily pared from 190,288 tons at the start of the month to 182,149 at the close, AZI notes. Daily average production was 2,028 tons as against 2,032 in October.

The production breakdown for November was reported as follows:

- Special high grade, 21,163 tons, as against 24,748 in October.
- High grade, 4,573, as against 3,736.
- Intermediate, 1,483, as against 503.
- Prime western (including select and brass special), 3,622 tons, as against 34,018.

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Obituaries

Lloyd E. Smith

Lloyd E. Smith, president of Virginia Dare Extract Company, Brooklyn, N.Y., died November 28 in that city. He was sixty years old.

Mr. Smith joined his father in the operation of Virginia Dare in 1924 and became treasurer in 1929. In 1933 he was elected vice-president and treasurer of Bernard-Julian, Inc., a subsidiary. He became president of both the parent company and its subsidiary in 1951.

His trade association activities included two terms as president of the Flavoring Extract Manufacturers Association. Mr. Smith was also a past president of the National Manufacturers of Beverage Flavors.

Lee C. Klemmer, vice-president of the medical bi-monthly *Modern Medicine,* died December 6 in New York. He was sixty-three years old. Mr. Klemmer joined *Modern Medicine* in 1946 and became a vice-president four years later.

Prior to that, he had been sales manager of *Drug Trade News* and *Food Field Reporter* and a manager of *Drug Topics Redbook.* He had been chairman of the award dinner committee of the Pharmaceutical Manufacturers' Association for ten years.

Dr. Walter Nodack, eminent German chemist and discoverer of the element rhenium, died December 7 in Bamberg, Germany. He was sixty-seven years old.

Dr. Philip A. Shaffer, biochemist who discovered the isoelectric method of obtaining insulin from the pancreas, died December 4 in St. Louis, Mo. He was seventy-nine years old.

Dr. Frederick W. Zons, industrial chemist and manager of the *Indicator,* official publication of the New York and New Jersey section of the American Chemical Society, died December 4 in Brooklyn, N.Y. He was seventy-five years old.

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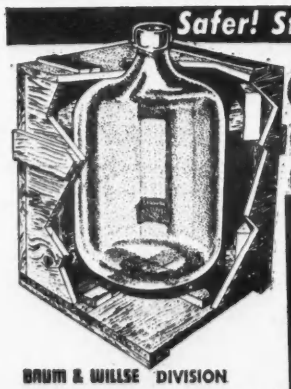
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Pesticides Grow Like Prairie Fires? They Did

—Continued from page 7

it's a question of pesticides or a man with a hoe.

Like everyone else in the chemical business, the pesticide people found their profits narrowing even as sales rose, NACA notes. Besides cost increases for labor, materials and distribution, agricultural chemical firms faced sharply rising expenses in research and development.

The ever-increasing requirements for government approval helped to boost the cost of product testing, bulging the year's R&D outlay.

From present indications, NACA concludes that R&D costs will not go down in 1961 and may continue to rise. Demands from the non-scientific public for additional research on industry products have been taken into consideration.

Closing the farmers' "knowledge gap" as disclosed by a recent association survey, is said to offer pesticide makers an opportunity for a broad expansion of sales, which would help to restore snap to sagging profits.

The association points without undue alarm to prospects of a federal attempt in 1961 to make a drastic cutback in farm surpluses, either by taking land out of production or by limiting off-farm sales.

"What effect any such program may have cannot be calculated in advance," the association declares, "and may well be partly or completely counterbalanced by the nation's growing awareness of the threats pests pose to our food supplies, our health and our comfort."

Africa and St. Lawrence Seaway

Both the opening up of Africa to wide-scale transportation facilities, and the opening of the St. Lawrence Seaway tend to increase that threat, NACA notes. The latter offers an additional 1,400 miles of coastline open to foreign commerce and the possible invasion of pests carried inland with foreign cargoes.

Value of pesticide exports in the first half of 1960 are tallied by NACA at over $47 million as against only $86 million for all twelve months of 1959. Over half the exports were accounted for by DDT, much of it going into overseas malaria eradication programs. Large amounts of fungicides, fumigants, herbicides and other insecticides figured in the foreign picture, the association points out.

"Pending any unforeseen developments here or abroad," the association's report concludes, "pesticide sales appear to be headed for additional gains in 1961.

The nation's growing population, the need for more efficient food and fiber production here and abroad, the trend toward creating a "pest-free" type of outdoor living are held to be prime factors in the industry's bright 1961 outlook.

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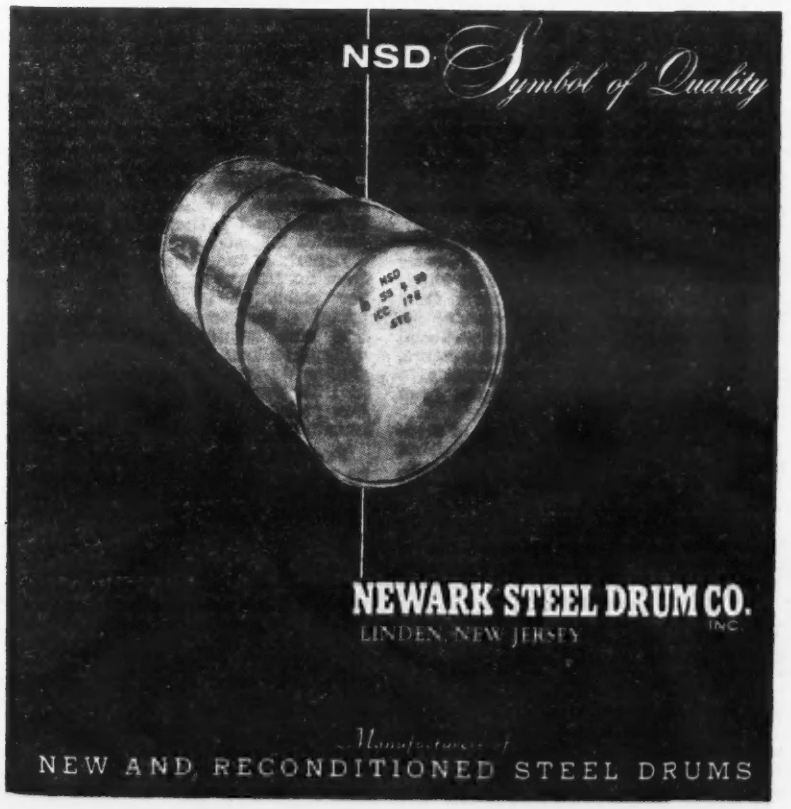

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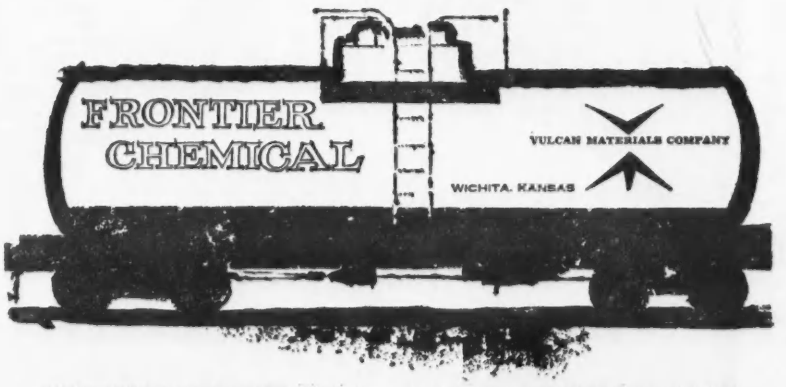

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Aliphatic Organics

A major chemicals producer has scheduled a start-up run of its just-completed glacial acrylic acid facility for December 16, and expects to be offering the product commercially early next year. Experienced—if pessimistic—observers figure the additional supply could prompt another round of price reductions even if the firm diverts the greatest percentage of its output to captive channels, as expected

Last July, the introduction of a lower-cost technical acrylic acid caused a 14½ cent drop in glacial prices, to 42½ cents a pound carloads delivered, and at this level, presumably, it was the better buy.

But no more. To catch the competition, both esterification and polymerization grades of the technical product have been reduced, with the tankcar tag on both now 38 cents a pound. That this move, reported last week but believed to be retroactive to several weeks ago, will spur a further cut in glacial prices, however, is doubtful.

"No price change is contemplated," spokesman for a leading producer told OPD last week. He explained that the technical acid, assaying at 95 percent, is only now on a par, acidwise and, thus, valuewise, with the purer glacial material.

In a second price development last week, a major manufacturer announced lower prices for its extensive line of starch products. The firm's production point price for 12 percent moisture "Unmodified Starch" became $5.50 per cwt., in a move to impede the in-flow of foreign materials.

But although competitive price chopping is common these days, green stamps aren't. More important, they may be quite incorrect in the dignified climes of the chemical industry. Nonetheless, a supplier of trichloroethylene intends to tempt its customers with Sperry & Hutchinson Green Stamps—1,000 stamps to a drum, redeemable in either industrial or consumer merchandise.

This could signal the start of a new era in which chemical manufacturers will distribute savings coupons to P.A.'s periodically; hold fire sales, inventory-clearance sales, special pre-seasonal sales, and other promotional devices of "other" merchandisers. Lunches, of course, will be out.

Acrylic Acid — Both esterification and polymerization grades of (technical) acrylic acid are now quoted at 38c. a pound in either tankcars or truckload lots. Formerly a 2½c. quantity differential existed and the polymerization grade, then listed at 40c. a pound in tankcars and 42½c. a pound in truckloads, commanded a 1c. premium.

The notable price adjustment results, it's believed, from competition posed by glacial acrylic acid, posted at 40c. a pound in tankcars July 5, immediately following the commercial introduction of the technical material. That the recent move will spur a further cut in glacial prices, however, is doubtful.

Spokesman for a major producer of glacial acrylic told OPD last week that "no price change was contemplated." He explained that the technical acid, assaying at 95 percent reportedly, is only now on a par, valuewise, with glacial, the purer product.

Watching the price maneuverings from the sidelines is a third chemicals producer who expects to be in the middle of things in the very near future. This firm, OPD has learned, plans a start-up run of recently completed facilities for glacial acrylic acid and acrylates manufacture, beginning December 16, and expects to be offering the chemicals on the open market early in 1961.

Although much of the firm's acid manufacture will be used captively, its debut could cause still another price skirmish, ending, as always, in lower prices and smaller profits.

Corn Starch—A major manufacturer has revised prices for an extensive line of starch products. Its announcement went as follows:

"Effective December 1, 1960, our production point price for 12 percent moisture Unmodified Starch is reduced to $5.50/cwt. (bag basis) 2 percent, 10 days.

"This action is being taken to make our prices more directly competitive with those of imported starches.

"Concurrently, the schedule for our modified and specialty starches is adjusted to correlate these with production costs."

The adjustments referred to include a "new warehouse charge of 25c. instead of 15c. per 100 pounds on all Starch and Dextrine products."

Prices for 100-pound and 140-pound cotton bags are 15c. per 100-pounds additional.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
130.70	130.70	130.68	132.95

For Current Prices See Page 11

Ethyl Alcohol—Molasses used in the manufacture of alcohol and distilled spirits amounted to 3.4 million gallons in September, about one-third the volume used in August (5.1 million gallons), but double that used in September last year (1.7 million).

Total quantity of molasses used for this purpose during the first nine months of '60 was 47.2 million gallons, about 50 percent more than the 31.3 million used in the same period in '59, the Internal Revenue Service reports.

Formaldehyde—The plywood industry, a major market for urea-formaldehyde resins, has been operating at considerably below capacity but, as a result, supplies have been reduced substantially. In addition, output will continue to be curtailed because of the holidays, published reports indicate. This is all to the good, of course because excess inventory and the need to unload it has driven prices lower.

According to the Douglas Fir Plywood Association, softwood plywood production in the western states fell to 46 percent of industry capacity or 93,261,000 square feet during the week ended November 26 from 77 percent or 173,015,000 square feet the week prior. The industry's 147 mills have a total capacity of 200,895,000 square feet, reportedly.

Molasses — Markets for feeding cane molasses were steady during the week ended December 6. Demand, Agricultural Marketing Service reports, was slow in the Gulf and Midwest but generally moderate in other areas.

New Orleans price was 13c. per gallon, ½c. higher than the preceding week. An occasional lower quotation did not seem to reflect the current market and may have included some undetermined contract terms, AMS said.

Imports of industrial and feed molasses during September totaled 37 million gallons, bringing total imports for the first nine months of 1960 to 375.9 million gallons, up from 233.6 million in the same period in '59. In fact, imports through the third quarter were approximately 96 million gallons more than for the entire 1959 calendar year.

Principal sources of imports in September were, in millions of gallons: Cuba 17.6; Mexico 7.2; Dominican Republic 6.1; Jamaica 2.6; and France 1.9.

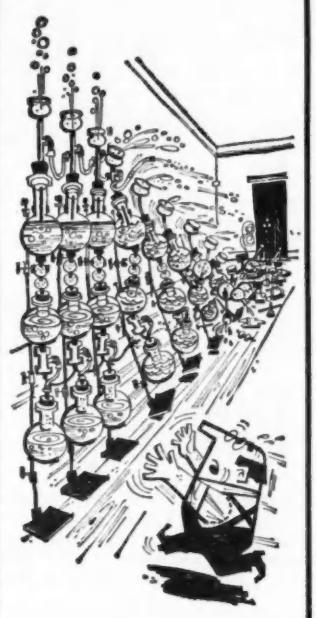
Exports of industrial and feed molasses from the US and its territories in September amounted to 0.2 million gallons, bringing the cumulative total for the first nine months of the year to 14.6 million gallons, as against 17.3 million gallons during the corresponding period in 1959. Puerto Rico furnished 12.3 million gallons of the '60 exports and the remainder came from the US mainland.

Pentaerythritol — Pentaerythritol may be one of the undisclosed components in a new solid propellant scheduled for production at a just-opened facility at the US Naval Propellant Plant in Indian Head, Md.

Described as just out of research and development, the new propellant is designed for the second stage of the Polaris missile. It contains nitroglycerine, nitrocellulose and other ingredients which are to remain secret apparently.

Running down a possible explanation for the surge in PE output in 1959 (10 million pounds over '58), OPD learned outer space and missile programs.

It was suggested and reported here that there might be a connection between the production gain and the race to



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Aliphatic Organics

(8/22/60) that PE could be a component in the solid fuel propellants used in the Polaris and Minuteman missiles. This reasoning followed from the fact that PE output was boosted substantially during World War II by requirements for PETN (pentaerythritol tetranitrate), then used to increase the explosive power of TNT.

Of course, with the intensive research into missiles and propellants in recent years, new developments or refinements along the lines of PETN probably were forthcoming.

PE production this year may hit or exceed the 64-million-pound high of '59. Through September, output was approximately 48 million pounds, according to Tariff Commission reckoning, and if a monthly average of 5.6 million pounds (the September figure) is maintained, a new record will be established.

Trichloroethylene—A report that a supplier of trichloroethylene plans to offer Sperry & Hutchinson Green Stamps to its customers shocked and horrified some members of the aliphatics chemical trade last week, while others—less tradition-bound, perhaps—replied to an OPD opinions poll with a big guffaw, indicating that they were either "above it all," or thought a trichloroethylene-green stamp combination plain silly. An interesting comment: "We'll have to put fetching female hostesses on our trucks."

Whatever the reactions—notable though they be—the offering of stamps on sales of an industrial product is an interesting development. Particularly so as it affects trichloroethylene, a keenly competitive market where prices have already taken a beating. And with green stamps to be offered now, the purchaser of the solvent will be paying still less.

Customers are to receive ten stamps for each dollar spent. One drum of trichlor will be worth about 1,000 stamps; redeemable in both consumer and industrial merchandise.

The firm that's hit upon this unique marketing strategy is a Rahway, N.J., machinery manufacturer. It offers both domestically manufactured (not its own) and foreign trichloroethylene—presumably as a sideline, albeit an important one.

Vinyl Chloride—Construction of a new vinyl chloride monomer facility is expected to begin after the first of the year. Partners in the building venture, two major US chemical manufacturers, recently exercised an option on an 850-acre site in the Baton Rouge area, close to Geismar, La.

As announced last May, the new plant complex will have facilities to turn out 150 million pounds of vinyl chloride monomer and 80 million pounds of acetylene annually. Production is expected sometime in 1962.

A year from now, of course, the market situation may be appreciably changed. A major open-market supplier recently posted a price reduction for the monomer (now at 11.3c. a pound, minimum freight allowed east of the Rockies), and shortly after this announcement, pure polyvinyl resins were cut 2c. a pound. The latter move was said to be an attempt to meet lower-cost Japanese material, however, and no reflection of the monomer change. Nonetheless, prices are down and profit margins smaller, a developing trend in a large segment of the chemical business.

OPD took a long, hard look at the vinyl chloride market in the issue of October 24. Reprints of this "depth" report are currently available at a small charge.

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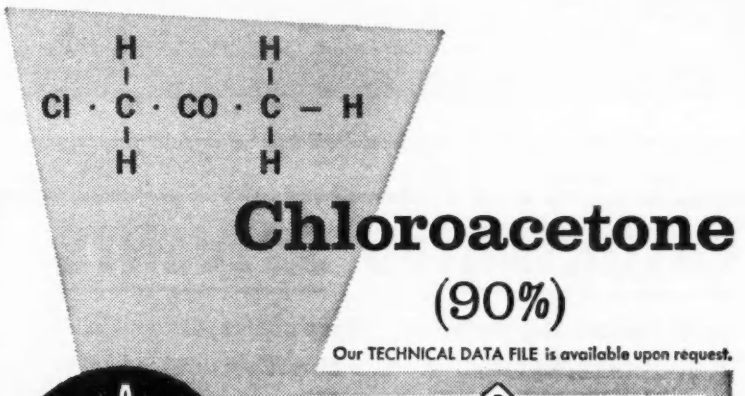

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See page 73—1961 Buyer's Guide Issue

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Tall Oil Fatty Acid Output Seen Rising

—Continued from page 3

from European imports, the threat here of tall acids for the European soap industry.

On the domestic scene, Mr. Eagleson said, vinyl plasticizers will continue to provide volume consumption of premium oleics and tall acids.

Low rosin tall fatty acid availability, he feels, will continue to increase sharply, as the pulp industry expands.

"Premium quality grades," he went on, "should find an expanding market at their economic price levels. More and more top quality tall fatty acids will be used in surface coatings—not necessarily as direct replacements for whole oils, but in completely new formulations giving improved properties over previous products."

"A long period of stable pricing will be a must," Mr. Eagleson declared, "to achieve much higher volume in alkyds, as overnight substitution is just not made in alkyd formulations—even though economics are highly favorable."

Among other points brought out by Mr. Eagleson were these:

• The 5 percent tall oil acids and distilled tall oils along with other fractionation co-products will "certainly remain the workhorse" wherever inexpensive carboxyl reactivity is required.

• Withdrawal of crude oil availability should not be overlooked. In such uses as flotation and linoleum, pure fatty acids may prove to be just as economical as oil from an overall dollar-value and performance viewpoint.

"Keep in mind," he added, "that adequate markets for tall oil rosin at profitable price levels must continue to provide the volume of 230 million pounds indicated for 1965. In two of the largest rosin consuming areas, paper and synthetic rubber, tall fatty acids and distilled tall oil may prove to be their co-products's toughest competition."

Discussing the production end of the business, J. H. Ruskin, of Arizona Chemical Company, said that the ultimate has been reached in improvements that can be accomplished by large-scale fractionation.

He noted that industry is already turning to other physical and economical means of making improvements, such as bleaching and chemical treatment.

"Other low-cost methods are needed, however," he said, "if we are to achieve the highest purity, color and odor characteristics." This would open the way into new marketing areas, such as foods and animal feed additives, Mr. Ruskin pointed out.

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Agricultural Chemicals

The fits and starts that have characterized the pesticide sales picture since World War II may take on a more symmetrical pattern according to estimates made by the National Agricultural Chemical Association. The association sees an end of the bust or boom era as sales of pesticides increase gradually and progressively each year. Signs of this pattern were noted in relation to sales in 1960. Basic manufactures netted $285 million last year, or three percent above the 1959 figure.

Concern over the narrowing profit margin was voiced as the association noted the increasing costs required to research, test, market and certify a new product. To offset any negative factors, the industry is embarking on a program which is attempting to increase the use of pesticides by educating the farmer in application methods and usage. Closing the farmer's "knowledge gap" would greatly increase the domestic market, assuring a healthy sales curve for pesticides in the future.

In the one price change for the week, some of the calcium phosphate listings were reduced $5 per ton. Dibasic, 18.5 percent P material, bagged, f.o.b. Texas City is currently listed at its new price of $75.50. Defluorinated phosphate, 18 percent P, paper bags, dropped to $61.25 per ton.

Potash shipments from two European countries are reported to be behind schedule due to the effects of a slowdown strike in one country and a mine accident in another. Strikes in France cut back production of potassium muriate an estimated 8 percent, while an accident in a Spanish mine reduced production about 20,000 metric tons. Both factors are cited as resulting in a real bottleneck in the already tight supply of potash through the world.

Animal and Plant Foods

Ammonium Sulfate — The Bureau of Mines reports that the cokeoven output of ammonium sulfate in October was 5.4 percent higher than in the previous month. Production in October totaled 42,572 short tons, compared to 40,380 short tons in September and 17,300 short tons for October of last year.

Stocks of cokeoven ammonium sulfate during October increased 3.5 percent. Correspondingly, sales of cokeoven material was only 0.5 percent above the previous month. Stocks at the end of October were estimated at 142,992 short tons, compared to 138,186 short tons at the beginning of the month.

Animal Proteins—Production of fishmeal and scrap in August totaled 50,000 tons or 3 percent above the figure set for August of last year, reports the US Department of the Interior. The increase was not enough to offset lower production in the first eight months of the year.

More fish are shipped for industrial use than end up in the frying pan, reports the US Department of Agriculture. The catch of fish for industrial purposes such as making oil and animal feed will probably exceed the amount taken for direct human consumption for the second year in a row. The government estimates a 1960 catch of some 2.5 billion pounds of industrial fish and about 2.4 billion pounds of food fish.

Potash—Supplies of French potash are reported to be very tight due to the effects of a slow-down strike at one of the French mines. The strike, now settled, resulted in an estimated reduction of 70,000 metric tons of K_2O and has put a real crimp in shipments of potassium muriate to this country. Importers here report that shipments of French potash are about 8 percent behind customers' orders.

Adding to the bind in supplies of West European potash shipments is the shaft failure of one of the Spanish potash mines. Reported as an accident in the main mine shaft which resulted in a ruptured lining and caused miners to shift to a secondary shift to continue operations, the loss in production has been estimated at 20,000 metric tons of K_2O.

Sources here commented that the loss of Spanish and French potash came at a time when every pound was needed to meet world-wide demand. Potash consumption has reached the point where it threatens to exceed world production, according to importers. While they admit to being more pessimistic than some domestic producers concerning the lag in potash production, they nevertheless feel that the gap between output and potash demand will probably continue for 5 years and might easily be followed by an additional 5 years of fairly snug market conditions.

According to current listings, potash standard muriate of West European origin is currently at 57½c. per unit K_2O for bulk material, ordered agains contract, shipped from Europe after October 1, and by December, 1960. On January 1, the schedule calls for a price of 60c. per K_2O, for material shipped from Europe, until June 15, 1961. Coarse or granular muriate is 1c. per unit higher for each period.

Sulfate of potash of West European origin is reported to be unaffected by the French and Spanish mine difficulties. Sources report that the deliveries of sulfate are being made on schedule.

Price Trends

Advanced

None

Reduced

Calcium phosphate, dibasic, feed grade, 18½% P, $5 per ton

Defluorinated phosphate, feed grade, 18% P, bags., c.l., works, $5 per ton

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
109.41	111.26	111.26	110.31

For Current Prices See Page 11

Pesticides

Pesticides sold in 1960 barely managed to inch out an advance over the previous year's total, reports the National Agricultural Chemicals Association. A cool, wet season depressed insecticide sales but helped to push herbicide and fungicide sales over the levels for 1959. The net result was a three percent increase in total sales with the basic manufacturers taking in $285 million for the 1960 season.

Of special interest was the gain in herbicide shipments. They were reported up 7 percent over 1959. The increase reflects a wider use of herbicides designed to control specific weeds, brush and grasses. In the opinion of the association, the future for herbicides will be enhanced as rising labor costs for weed and brush control speed the trend toward to the greater use of these chemicals.

Increasing costs continued to drain profits in the pesticide industry, as is the case in most industries. But added to the normal expenses of research and testing, pesticide men find the cost of getting a product approved through meeting government requirements also on the increase.

Several companies report that it now costs from $1 million to $1.5 million to move one new product through the various stages of researching, testing and marketing. Rising costs have forced some companies to curtail or even completely liquidate their research activities. The future, according to the association, will see more money spent in research and development than ever before.

To maintain profits in the face of narrowing profit margins, the industry is marshalling its forces to improve its effectiveness at the marketing level. The target for this new program is the farmer. According to surveys conducted by the industry, there seems to exist a "knowledge-gap" in many areas of the farming population. Lack of application equipment, and knowledge concerning the proper use of many of the pesticides is seen as lessening the potential of the market. Closing the gap will be the industry's first problem in increasing sales.

The federal government's farm program, while still in doubt, should have a moderating effect on the agricultural chemicals market. Offsetting that possible trend is the growing awareness of the need for pesticides to combat the pests that threaten our food supply, and comfort.

Two recent transportation developments are seen by the association as creating a greater risk in possible infestations. The opening of the St. Lawrence Seaway, and the increase of trade with Africa is felt to have raised the possibility of introducing new species of pests to this country.

In looking ahead to 1961, the association predicts additional gains in pesticides sales, on the basis of the current trends for the industry.

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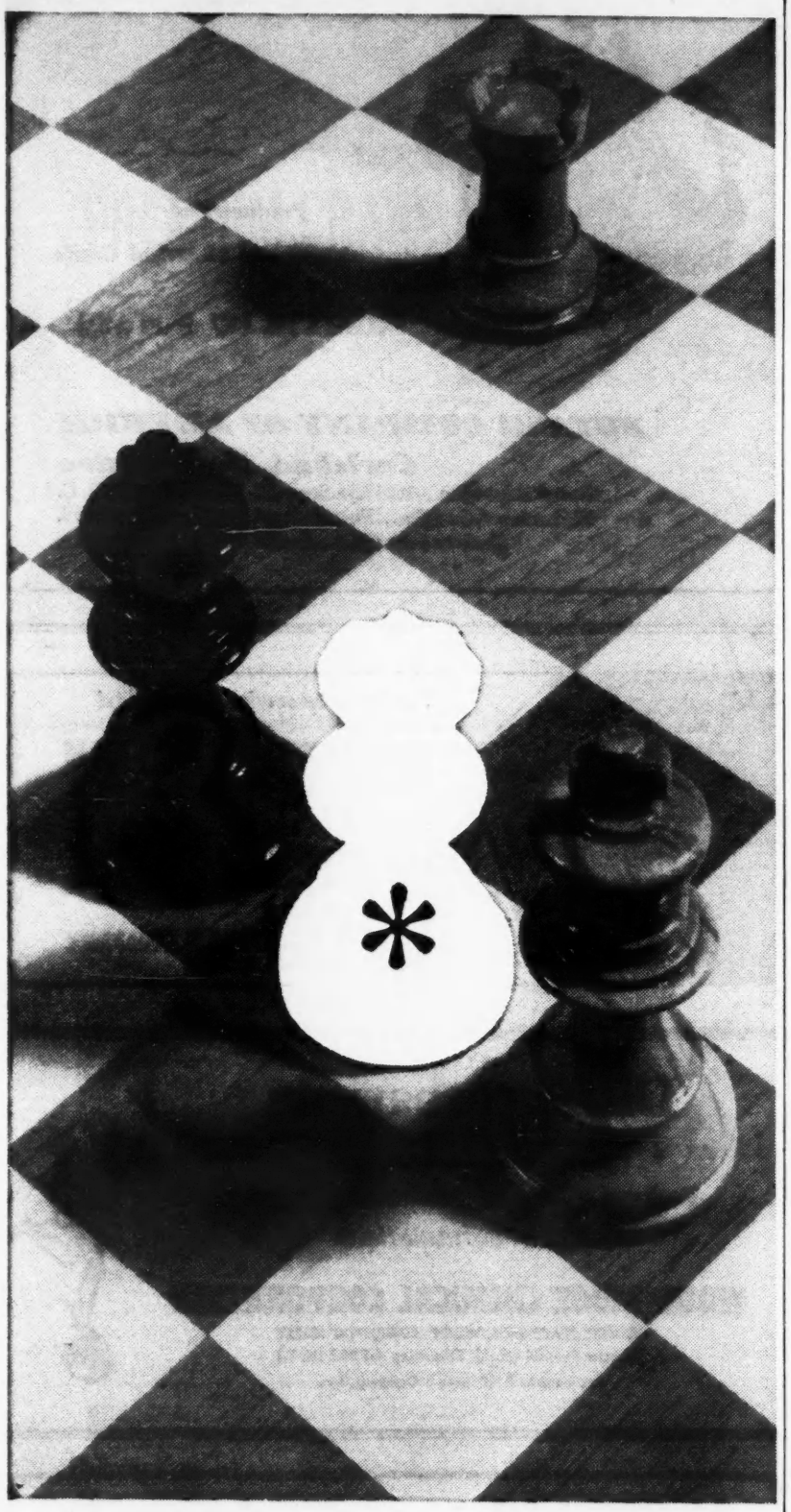

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KOPPERS COAL CHEMICALS

Coal Chemicals

Naphthalene price increases of ¼ cent and 1 cent a pound were revealed by two major suppliers last week thus creating a price range of 6¼ cents to 7 cents a pound for crude 78° material. The ¼ cent hike becomes effective January 7 while the 1 cent boost will take effect January 15. Coming in the face of looming petroleum naphthalene competition, the price increases are the result of lack of suitable crudes and increased labor and material costs.

Two other price increases, one for an intermediate — bisphenol-a — and the standardization in price of a basic product—phenol—featured other activity in the coal chemical industry last week. A major producr of bisphenol-a raised the truckload and carlot price of material 1 cent a pound and 1½ cents a pound for lesser amounts. New price will become effective January 1 for contract customers and December 15 for spot customers. Reflecting general price increase of labor and raw materials according to the producer, the new schedule will be 30½ cents a pound for material in bags, carlot or truckload quantities, and 32½ cents a pound for material in lesser amounts.

The one cent a pound disparity in price of phenol in sales to resin makers and non-resin makers was abolished last week as one producer instituted a common price for all customers.

New price in tankcar quantities is 17½ cents a pound.

Immediately before the fourth quarter producers had announced a one cent increase from 16½ cents a pound to 17½ cents. One supplier, however, rescinded the increase in sales to resin makers.

Other producers competitively followed suit resulting in a split schedule of 16½ cents for resin makers and 17½ cents for non-resin makers.

The problems involved in maintaining this posting are obvious and were a source of discontent to producer and consumer alike.

Cokeoven output of selected chemicals except one rose in October from September's figures, according to Bureau of Mines.

Some of the more notable increases occurred in nitration grade of benzene which climbed from 6.1 million gallons in September to 6.5 million gallons in October while industrial pure grade increased from 1.9 million gallons to almost 2 million in the same period.

American Iron and Steel Institue estimated steel production for the week ended December 11 would amount to 48.3 percent of theoretical capacity equivalent to 1,376,000 net tons of steel.

Output in the previous week was 1,393,000 tons, 1,468,000 tons in the comparable week one month ago, and 2,732,000 tons during the corresponding week one year ago.

Price Trends

Advanced

Bisphenol-a, truckloads, 1c. per lb. lesser quantities, 1½c. per lb.
Phenol, 1c. per lb.

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
117.56	117.56	117.64	118.49

For Current Prices See Page 11

Basic Products

Coal Tar—An increase of 9.6 percent in production of crude coal tar was achieved in October.

Total for the month was 47.8 million gallons as compared with 43.6 million gallons for September. Volume in October a year ago during the steel strike was 20.3 million gallons.

Total production in the first ten months of this year was 599.7 million gallons as compared with 531.3 million gallons in the same period last year.

Sales also jumped showing a 6.6 percent growth.

Excluding tar transferred to affiliated companies, volume was 23.2 million gallons as against 21.8 million in September and 14.8 million gallons in October a year ago.

For the first ten months this year, however, sales are down with 257 million gallons being recorded through October as against 270 million in the same period last year.

Stocks declined in October to 23.7 million gallons, a drop of 12.3 percent from September.

Naphthalene—Increases of ¼c. and 1c. a pound were revealed by two major suppliers last week.

The ¼c. boost will take effect January 7 and the 1c. hike later on January 15.

A price spread for crude 78° material of 6¼c. to 7c. a pound is thus created.

The tight supply of naphthalene has long been considered one of the most critical situations in the coal chemicals industry. No price increase was thought likely at this time, however, in view of the onrushing competition from petroleum sources.

Evidently lack of suitable crudes and increased costs have tipped the scales despite future competition.

Now, with higher prices prevailing, it is thought those petroleum forms undecided as to whether to enter the field or not will firm up plans and proceed definitely to produce naphthalene.

Petroleum sources will start coming on stream with the first of their presently planned 350 million pounds capacity sometime after the middle of 1961. Steel rate is expected to hit respectable levels once again in the spring. Result is going to be an increased supply of naphthalene.

One trade source remarked last week that demand will still be far ahead of supply through 1961 but that increased capacity—triggered by higher prices and higher steel rate—will lead to an oversupply of naphthalene in 1962.

Phenol—A major producer last week abolished the 1c. a pound differential in the price of phenol by announcing a uniform price of 17½c. a pound, tankcar quantities, for all consumers.

Thus ends three months of attempting to operate with a split price schedule.

Before the fourth quarter began a 1c. price schedule had been generally announced. One producer then cancelled the 17½c. a pound price for sales to resin makers and continued to sell to them at 16½c. a pound while maintaining the higher price for other customers.

Other producers followed suit.

Awkward situations soon arose. Does the producer sell phenol at two different prices to one consumer who has resin and non-resin manufacturing capabilities? Obviously not. Most producers therefore remained competitive at the lower price.

One producer reveals that the freight allowed listing for phenol formerly applicable East of the Rockies is now pertinent

Cokeoven Output: October

The following statistics indicate production of selected coal chemicals as reported to the Bureau of Mines by cokeoven plant operators. Benzene statistics do not include motor benzol. All figures are reported in gallons.

	October 1960	*October* 1959	*First Ten Months* 1960	*First Ten Months* 1959
Benzene, nitration	6,485,643	1,767,900	88,145,374	68,730,500
Industrial pure	1,982,581	923,600	29,037,112	26,113,900
Industrial 90 and other	141,834	163,700	1,606,669	1,388,500
Coaltar, crude	47,784,959	20,220,200	599,718,659	531,315,400
Chemical oil, crude	1,825,699	577,500	24,395,676	16,493,400
Solvent naphtha, crude and refined	384,973	49,600	4,018,512	3,284,100
Toluene, nitration	1,662,697	472,000	21,298,852	17,170,200
Industrial pure	535,832	242,409	5,037,664	4,880,400
Xylene, all grades	601,868	221,000	7,036,336	6,139,400

Coal Chemicals

to the entire continental US except Alaska.

Toluene—Cokeoven suppliers as of last week still had not made any move to adopt the f.o.b., freight equalized terms introduced a month ago by petroleum suppliers.

Purpose of these fabian tactics appears to be an effort to force withdrawal by petroleum sources of the newly-posted terms.

Current market conditions remain firm, however, despite the uncertainty about the final solution of terms.

"Hydeal" producers are quite anxious to secure material for their upcoming production schedules. It was learned last week that one such producer had offered a petroleum toluene supplier an even swap—xylene for toluene.

Since toluene in the Gulf is moving at a top figure of 18½c. a gallon and xylene at about 20c., the deal would be the equivalent of buying 20c. toluene.

Dyes

Vat Green 1 (C. I. 59825)—September production jumped 60,000 pounds over August. Tariff Commission reports 249,517 pounds being turned out in September as compared with a revised figure of 191,881 in August.

Direct Black 38 (C. I. 30235)—September production was tallied at 374,033 pounds in Tariff Commission report, an increase from the 283,881 pounds reported in the previous month.

Intermediates

Bisphenol-A — A major producer last week announced a 1c. a pound increase for truck load and carlot quantities of bisphenol-a and a 1½c. a pound increase for lesser amounts.

New schedule becomes effective on contract January 1 and December 15 on spot.

Citing general price increases of raw material and labor as the reason for the increase the producer posted the following schedule:

Bags, carlot or truckload, 30½c. a pound.

Bags, less than carlot or truckload quantities, 32½c. a pound.

Finding its widest use in epoxy resins and polycarbonates, bisphenol-a capacity has been expanding of late.

Phthalic Anhydride—The 1c. a pound increase by a major supplier two weeks ago resulting in a 19½c. a pound price for phthalic anhydride has not as yet been followed by other major suppliers.

Current range of prices is 18½ to 22½c. a pound.

With the announcement by two suppliers of increases in naphthalene, however, it would appear that phthalic anhydride producers will seek the level of 19½c. a pound.

One immediate effect of the solo boost in phthalic anhydride was the announcement last week by one firm of a ½c. increase in the price of phthalate plasticizers. For further details consult *Coatings Materials* column of this issue.

The shortage of naphthalene has been a sore spot for phthalic producers for some time. Relief does seem on the way in the shape of petroleum naphthalene supplies, however. Currently 350 million pounds is planned but the boost in price may trigger even further expansion or even new entries into the field.

Latest Tariff Commission figures for September reveal PA down 4 million pounds from August.

Average monthly production this year has been 32 million pounds—most of it built up early in the year when steel mills were going full blast. September's output was 29.2 million pounds.

In the first nine months this year production was 289.5 million pounds as against 278.1 million pounds last year in the same period.

Evidence of the tightening of PA was the narrowing recently of the industry price spread from 4 to 3c. with schedules now ranging from 19½c. to 22½c.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended December 11, were as follows:

Ammonia liquor	lbs.	435,518
Ammonium sulfate	lbs.	18,315,933
Benzene	gals.	1,766,265
Coaltar	gals.	9,653,973
Crude chemical oil	gals.	282,280
Solvent naphtha	gals.	56,456
Toluene	gals.	395,162
Xylene	gals.	112,912

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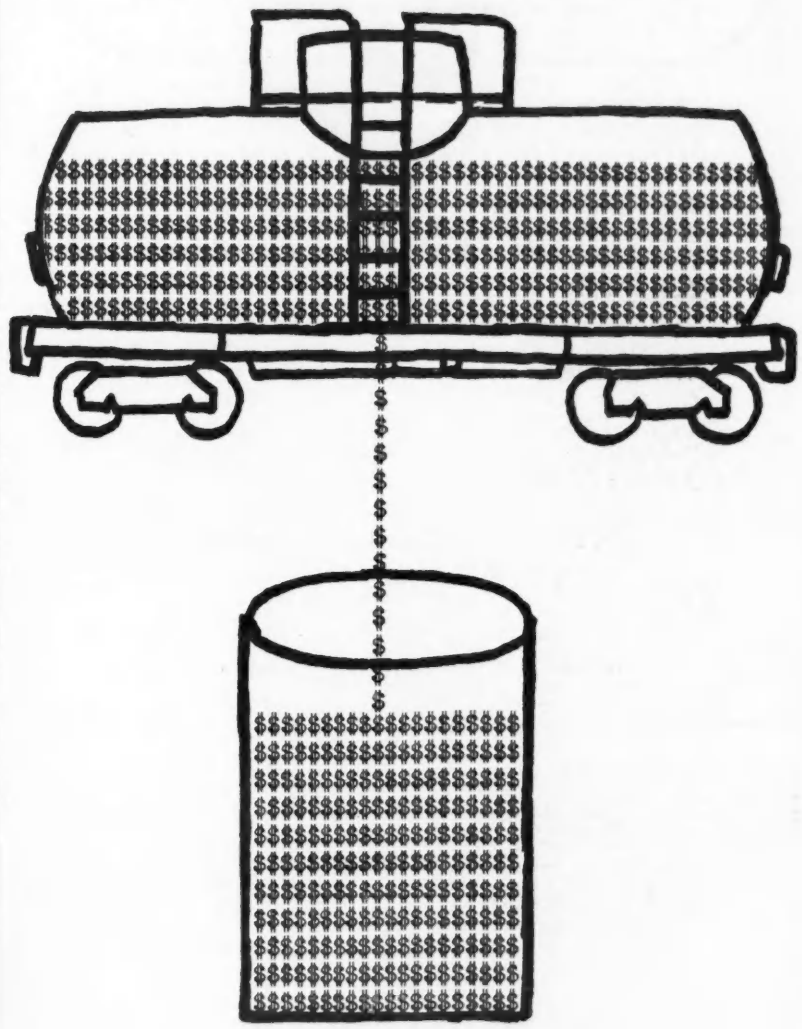

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*T.M. 8204-R

Food Additives Safety Status: Price of Proof

—Continued from page 5

fectively against the introduction of harmful uses of food additives."

Another speaker at the symposium, Charles G. Mortimer, chairman of Geneneral Foods Corporation, said that the cooperation of government, science, and the entire food industry is needed to "shore up confidence in America's food supply.

Mr. Mortimer, who is president of the Nutrition Foundation, said public awareness of why and how chemicals and additives are used in growing, processing, and storing foods will do much to avoid the possibility of such things as the "cranberry scare" of a year ago, and help check the creeping notion that additives are "badditives."

A Review by Larrick

Commissioner George P. Larrick of the Food and Drug Administration reviewed some of the developments in food processing over the years and the efforts of FDA to keep abreast of the problems created thereby in the testing of foods for safety and purity.

In discussing the future and the problems it presents to agriculture and the chemical industry, Dr. Dawson said that it seems clear to him that maintenance of our rate of progress will not be easy and will require even greater efforts to achieve accomplishments than have been made in the past.

A fundamental problem is that of testing and analytical technics, he said. Although it is possible to run toxicological tests for years with laboratory animals, researchers can still only demonstrate effects of some particular recognized magnitude. They cannot demonstrate the absence of any effect at all, he stated because toxicity is not a specific measurable characteristic like melting point or molecular weight.

"In our chemical analyses," he continued, "we can be accurate only to a point. Our analytical procedures cannot prove an absolute zero. We cannot prove the presence of a smaller amount of chemical than we can detect.

"Our whole concept of tolerances is based on analytical methods of finite sensitivity, and the term zero can only mean 'less than can be detected by a method of appropriate sensitivity.'

"Since both our bio-assays and our analytical methods leave us in the position of having proof only when we have failed, we have to resort finally to scientific judgment on the basis of what is known now because so much is still unknown. If we find no negative evidence, we can assume that we have succeeded. But we can't prove it."

Law Has Influenced Research Spending

Dr. Dawson said that the willingness of industry to risk capital in basic research has been subtly but profoundly influenced by the changes in legislation and in legislative climate which have developed in the past several years. "I refer to the increasing emphasis on the risk involved in any chemical additive to food," he said.

"This seems to reflect a public—or at least a legislative—desire to reduce the risk of any harmful effect of any chemical additive to foods, and preferable to make that risk approach zero."

He said it was not possible to eliminate risk and efforts should be directed at eliminating only those risks which are not consonant with potential benefits. He warned that any consideration of the extent of risk without simultaneous evaluation of the potential benefit raises the danger of effectively preventing progress.

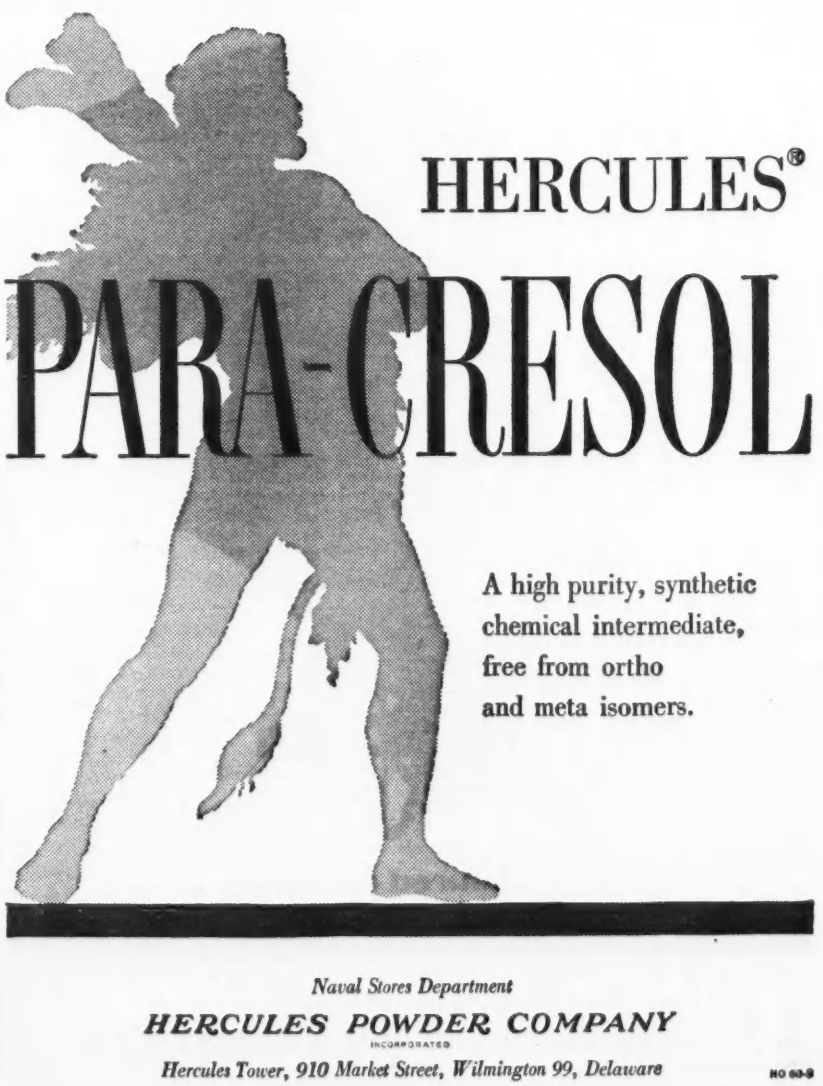
Russia's Need: Reagents

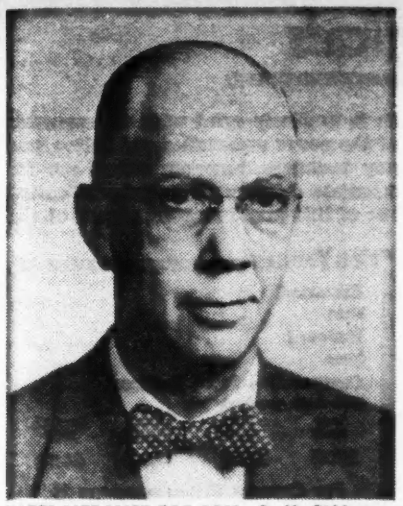
—Continued from page 7

laboratories in peripheral areas are lagging from three to five years behind centrally-located institutes in terms of progressive analytical methods because reagents are either lacking or improperly distributed.

The Soviets are now studying the following recommendations for improvement of the situation:

- Increased production of borides, silicides, phosphides, sulfides, lanthanum hexaborides, carbides and nitrates (particularly of boron and silicon).
- Organized and standardized production of titanium boride, chromium boride, silicon nitride, boron nitride, molybdenum silicide and others.
- Supplying laboratories with heat-resistant quartz vessels, clock glass and other equipment.





TAPPI MEDALIST FOR 1961: G. H. Chidester, chief of the US Division of Pulp & Paper, US Forest Products Laboratory, Madison, Wis., who will receive the 1961 TAPPI medal at the annual meeting of the Technical Association of the Pulp & Paper Industry in February in New York.

Drug Makers Get Deadline

—*Continued from page 3*

prescription drugs. Action on this matter is being delayed beyond December 22 at request of the American Medical Association so that it can study and comment on such a requirement.

One of the objections raised by the drug manufacturers and accepted by FDA in the final regulations will make it unnecessary for manufacturers to include full information about a drug on so-called "reminders" mailed out to physicians. As originally written, the regulations would have required these reminders to contain information on doses, indications and contraindications. So long as the reminder contains only the name of the drug, the other information will not be required.

Representation Flatly Rejected

Industry's representation that it is unnecessary, illegal or otherwise undesirable to require promotional labeling furnishing information for use of prescription drugs to be fully informative were flatly rejected by FDA along with another proposal.

That one was that in lieu of the requirement that such labeling be fully informative, it may simply refer to the availability of other literature furnishing full information.

FDA's position on these questions was that since it can be legally established that literature mailed to the medical profession is labeling, the regulations should not allow such literature to mislead by disclosing the advantages of a drug while omitting its hazards and disadvantages.

Also rejected are industry recommendations for arbitrary time limits on factory inspections in connection with new drug applications. The provisions of the regulations with respect to factory inspections were revised, however, to recognize that in most cases an adequate inspection can be completed during the time other aspects of an application are undergoing study; and that an adequate inspection does not necessarily require in all cases observation of the preparation of the first production batch.

The Major Changes

As finally issued the major changes in labeling of new drugs are these:

- Labels of drugs for injection must declare the quantity or proportion of all inactive ingredients. Previously, regulations have required inactive ingredients to be named on such drugs but required quantitative declaration of only the active ingredients.
- Labels of prescription drugs will have to bear identifying lot or control number from which it is possible to determine their manufacturing history.
- Any labeling of prescription drugs or devices including promotional literature mailed or given to physicians by company representatives which furnish information about uses or dosage must contain complete information for professional use, including information about any relative hazards and the conditions in which the drug should not be used.
- If the drug is new, any information about uses, dosages, hazards and contraindications must be substantially the same as that contained in the application to market the drug. Advertising or oral detailing for a new drug may offer it only for use under the conditions specified in the labeling contained in the application to market the drug. Labeling or advertising which goes beyond the claim approved in the original labeling must be re-submitted for approval in advance of use.
- Labeling bearing information about usage and dosages must show the date of issuance or latest revision.

Changes in the regulations to assure the safety of new drugs would provide:

- That permission to market the new drug may be denied if the manufacturer refuses to allow inspection of his manufacturing methods, facilities, controls or any records pertaining to them.
- Applications for new drugs may become conditionally effective but the drugs cannot be marketed until the adequacy of manufacturing methods, facilities and controls has been verified by inspection.

The regulations differ from the July 22 proposal in these two important respects:

- Labels for eye preparations need declare only the names of inactive ingredients, and not the quantities of such ingredients, as originally proposed.
- All prescription drugs are required to bear on their labels the quantity of the active ingredients.

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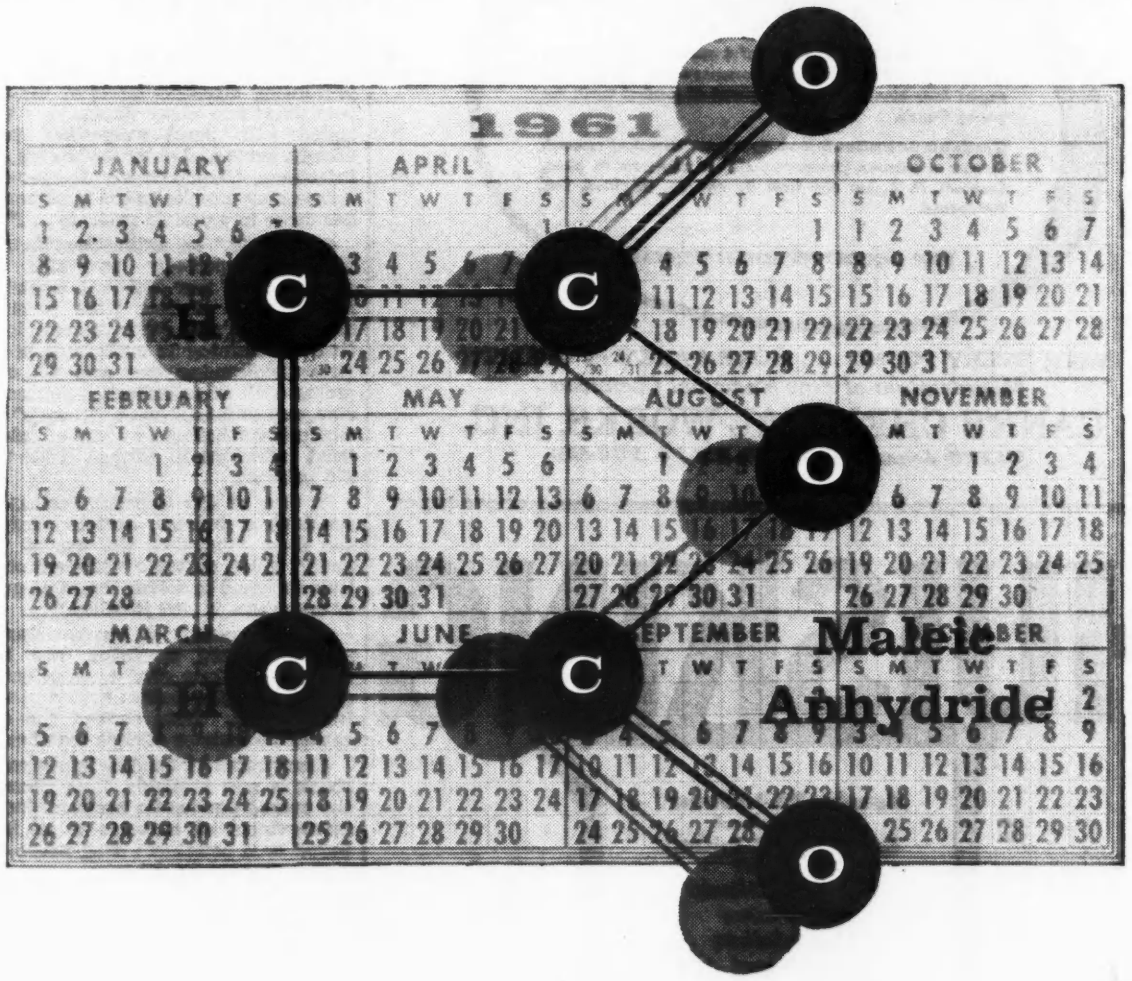

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Drugs, Fine Chemicals

Demand for drugs and fine chemicals is routinely good with the seasonal items like aspirin, acetophenetidin, some of the newer antibiotics and sulfas, and vitamins getting the biggest play. In many instances, however, orders are for smaller than customary amounts with immediate delivery requested—indicating buyers' reluctance to purchase ahead. None of this would matter, several of the drug manufacturers say, if prices were firmer and profit margins broader.

Now, of course, there's a new fear: A drop in demand if the recession, currently affecting other segments of business, continues much longer. Some people feel that without an upturn early next year, drug sales and profits are going to sink after the first quarter. This would further depress already depressed prices.

Combinations of drugs are being found effective in treating various medical conditions where hitherto none of the components was used alone. Recently reported were these developments:

• "Antivert," a combination of the antihistamine meclizine and nicotinic acid and a drug commonly prescribed for vertigo, has been found to be of "considerable value" in treating and preventing different kinds of vascular headaches and other discomforts associated with nasal congestion, nasal allergy, acute and chronic sinusitis, and infections. Clinicians say it "provides noteworthy promise in the treatment of headache in geriatric patients . . ."

• "Taomid," an antibiotic-sulfa combination, reportedly prevented the emergence of new resistant organisms in extensive clinical tests involving streptococcic and staphylococcic infections. Containing 75 milligrams of Tao (triacetyloleandomycin) and 111 milligrams each of sulfadiazine, sulfamerazine, and sulfamethazine, "Taomic" successfully combatted an army of urinary tract infections in clinical trials with 276 patients.

In view of the alarming increase in resistant organisms, doctors studying the drug concluded, the use of "Taomid," which contains "different chemicals designed to attack the same group of organisms is well justified."

• "Bonodoxin," a combination of pyridoxine and meclizine, has been found to produce good to excellent results in treating babies suffering from infant colic. Tests showed the drug caused no toxic or allergic reactions.

A new agent for treating hypoglycemic shock is now available. It is glucagon, the second pancreatic hormone for the management of diabetes to be introduced by a prominent drug house—the first being insulin in 1923.

Glucagon's two principal uses are to treat hypoglycemic reactions in diabetic patients and to terminate therapeutic insulin coma in psychiatric patients. In each instance, the manufacturer says, recovery occurs in from five to twenty minutes. The drug, under clinical study for the past seven years, is dispensed only on prescription.

Prices for "Grifulvin" griseofulvin, an oral anti-fungal agent, have been cut by twenty percent. Under the revised schedule, prices to retailers are $9.60 for 250-milligram tablets and $91.80 for 500-milligram tablets, in lots of 500.

Ascorbic Acid—Potential grist for the promotion mill . . . Last Thursday (December 8), syndicated columnist Hy Gardner endorsed ascorbic acid in his regular slot in the New York Herald Tribune. Furthermore, he was given an assist by Nancy Salinger (Mrs. Pierre), wife of President-elect Kennedy's press secretary.

Gardner reported that he had been harassed by an angry throat ever since "he caught a cold as a kid wearing short pants in a blizzard" but had come upon a soothing vitamin after a lifetime of frustration. This was a combination of citrus compound and ascorbic acid.

Having offered the vitamin to talked-out Salinger, he drew this comment from Mrs. Salinger: "The chewy kind of vitamin C tablets cost 69 cents a hundred and assimilate much quicker than capsules."

Gardner said that he found his remedy "worked so successfully with me and dozens of my friends that I'd feel remiss if I didn't pass along my find to other friends." We feel likewise.

Price Trends

Advanced
None
Reduced
None
Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
59.27	59.27	59.28	60.23

For Current Prices see page 11

Caffeine—The domestic market remains highly competitive but this is to be expected as long as synthetic caffeine manufacturers face imports. These, however, dropped appreciably in September, to 42,223 pounds, valued at $51,941, from 114,661 pounds, valued at $139,554, in August. Both months, imports came solely from West Germany; our rich rival.

Nicotinamide—Here as in other areas of the drug and fine chemicals market there's no such animal as "the price." Where competition is keenest, prices are lowest. Mirror of the market: a price spread of $5.75 to $6.50 a kilo for 100-kilo lots, too broad to create stability though lower, and indicative, unfortunately, of further fluctuations.

A combination of "Meclizine" and nicotinic acid has been found to be of considerable value in treating and preventing different kinds of vascular headaches and other discomforts associated with nasal congestion, nasal allergy, acute and chronic sinusitis, and infections.

The combination drug is called "Antivert." which is commonly prescribed for vertigo. Its new use was reported in *Postgraduate Medicine* by two physicians at the George Washington University Hospital.

In clinical tests with 134 patients suffering from a wide variety of different types of headaches, "Antivert" produced a noteworthy reduction in the severity of the headache in 72 patients—more than half of the group tests. "Antivert" was used after other drugs failed to produce satisfactory results, the doctors reported.

In headaches linked with nasal obstruction, nasal drainage, nasal allergy, facial pain, and sinusitis, sixteen of nineteen patients responded satisfactorily to "Antivert" therapy.

Finding the drug a successful remedy for other types of headache, the doctors concluded that "'Antivert' provides noteworthy promise in the treatment of headache in geriatric patients and in the treatment of certain patients with post-traumatic headache. Headache associated with Meniere's syndrome or other types of vertigo often can be prevented by the regular administration of 'Antivert.'"

"Antivert" is a prescription drug.

Quinidine—General Services Administration, housekeeper to the federal government, has hung a "for sale" sign on 453,000 ounces of quinidine that's been declared excess to national stockpile requirements.

To avoid disrupting markets, the agency plans to offer no more than 100,000 ounces at any one time and to space offerings at six-month intervals. And to encourage small firms to participate in the sale, it will allow bids on as little as 1,000 ounces.

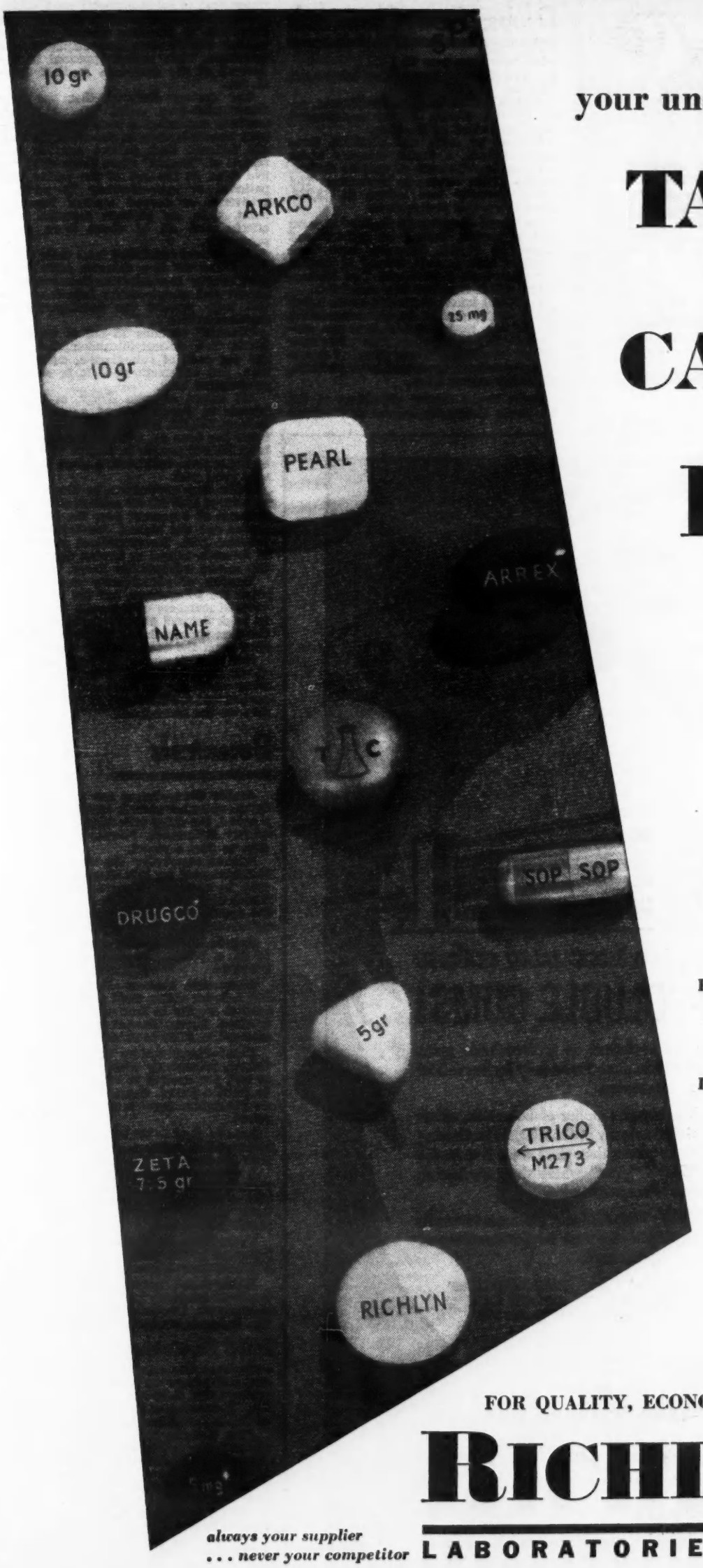
First offering is expected in about six months. In the meantime, the impending sale could result in a cutback in imports. These totaled 76,328 ounces in September and were valued at $52,434. Shipping here were The Netherlands (63,328 ounces at $42,824) and West Germany (13,000 ounces at $9,610).

Quinine—Higher schedules have been posted by dealers here, following notification of price increases from their European suppliers. Currently quoted are these prices for 1,000-ounce lots in drums (previous listing in parenthesis):

Quinine NF, 37½c. an ounce (31.05c.); quinine sulfate, 31½c. an ounce (26.25c.); quinine bisulfate, 28c. an ounce (23.30c.); quinine hydrochloride, 36½c. an ounce (30.30c.).

In cases of cans, all salts prices are uniformly ½c. an ounce higher, reflecting

—Continued on page 56



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Drugs, Fine Chemicals

—*Continued from page 54*

the additional packaging and labor costs involved.

Last price change, also an advance, occurred last March. Higher replacement costs were cited at the time.

Imports of salts and alkaloids from cinchona bark, a basket category which includes in-shipments of quinine sulfate, totaled 15,582 ounces in September. The entire quantity was valued at $3,388. Source was The Netherlands.

Saccharin—Imports in September were 26,438 pounds, valued at $37,410 and dutied at $7,900. Shipping here were Japan (24,438 pounds, valued at $34,381 and dutied at $7,264) and The Netherlands, which supplied the remainder.

Continual influx of foreign goods keeps the domestic market keenly competitive. In addition, manufacturers here are confronted with competition from other noncaloric sweeteners whose chemical names are appearing on more and more products, ice cream among them.

Sulfa Drugs—Three physicians at the St. Louis University School of Medicine report that an antibiotic-sulfa combination prevented the emergence of new resistant organisms in extensive clinical tests involving streptococcic and staphylococcic infections. Their report appeared in the *Journal of the American Medical Association.*

The doctors declared that the new combination-drug, called "Taomid," successfully combatted a wide range of urinary tract infections in clincial trials with 276 patients. Each patient received two tablets of "Taomid" three times daily for five days. At the end of the period, 197 patients, or approximately 72 percent, recovered or showed marked improvement. Only six patients reported side effects, and all of these were mild, reportedly.

The doctors concluded from their study that "'Taomid' is a valuable addition to drug therapy in combatting these staphylococcus and streptococcus infections and will help prevent the development of resistant strains . . ."

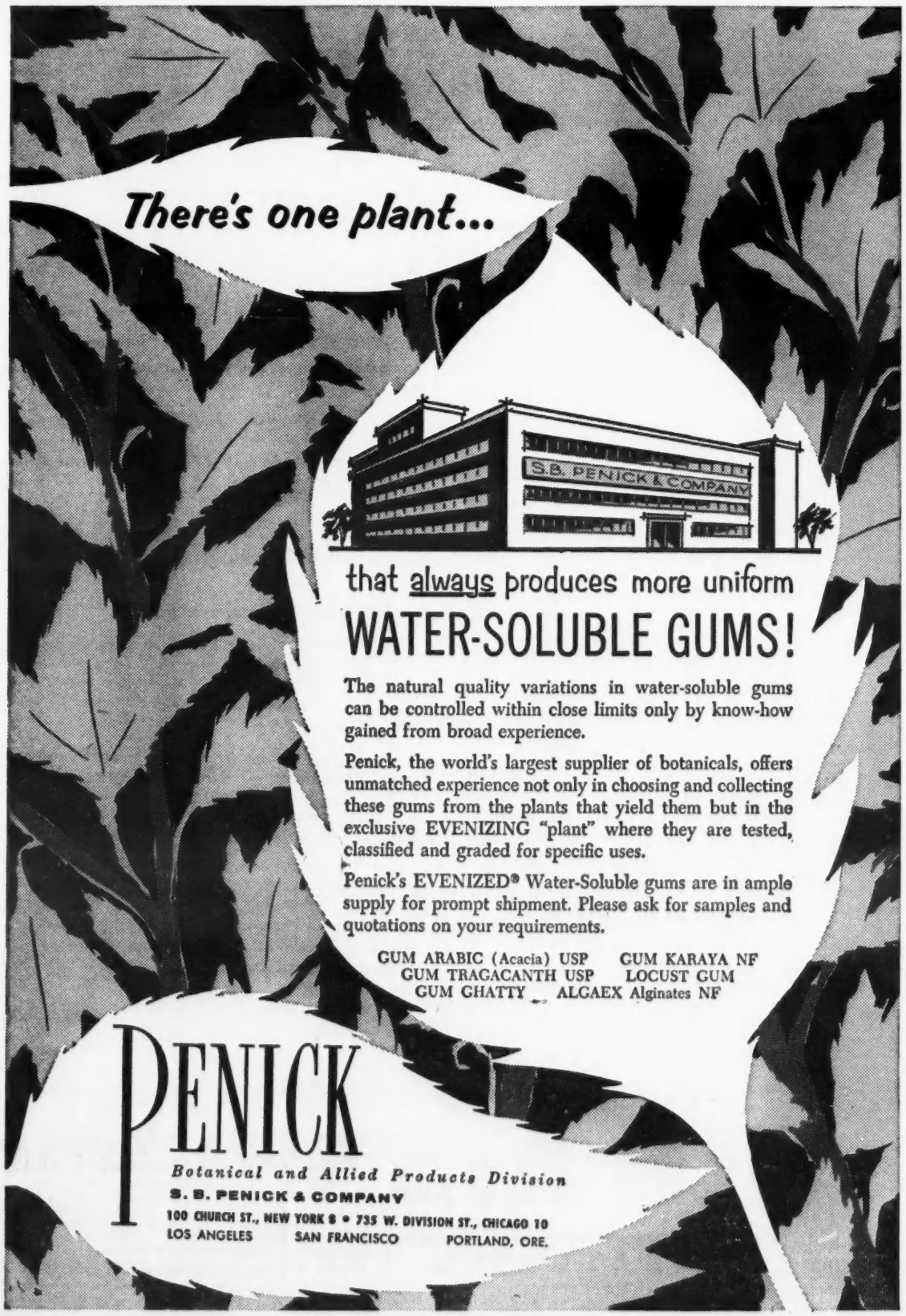
"Taomid" contains 75 mg of the antibiotic Tao (triacetyloleandomycin), and 111 mg each of sulfadiazine, sulfamerazine, and sulfamethazine. It is sold by prescription only.

US output of sulfa drugs, at 416,689 pounds in June, declined seasonally in July, to 237,455. Since then, however, the trend has been up, with production going from 396,609 pounds in August to 413,654 in September. Indicated; a good wind-up to a good year.

Sulfa drug production in the first six months of 1960 hit 2.8 million pounds, an increase of 6 percent over the like 1959 period and the highest January-June total since 1952. The propellant, assumedly, is domestic as well as foreign demand for the newer sulfonamide drugs.

Exports of sulfathiazole and sulfadiazine are going down, but the newer developed members of the sulfa family are in brisk demand abroad, outshipments in the first six months of '60 rising 20 percent from the comparable period in '59.

But least all appear too rosy, a note of gloom must be added. Prices are somewhat weak due to increased production abroad and the influence of this competition on the home-front.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Botanicals

Arabic Gum—Prices are rather weak. Quote on amber sorts is about 21c. to 23c. a pound, the range reflecting quantity and quality differences. Powder is selling at 27c. to 30c. a pound.

Dealers report that the weaker market is not unusual for this time of year. New crop is expected to arrive here in late March or April and this factor, as well as the approaching holidays and smaller requirements, is a definite influence.

Angelica Root—A big price spread: 50c. to $1 a pound. Demand fair, supplies adequate.

Chamomile Flowers—Hungarian material is lower at 85c. to $1 a pound. Merely routine inquiry in face of recent arrivals is cited. Roman flowers are quoted, unchanged, at $1.50 to $1.75 a pound.

Ergot—Some dealers report no stocks. Others, presumably with a little material to sell, are quoting at anywhere from $2 to $2.50 a pound. Current shipping price on Portuguese ergot is said to be $1.40 a pound.

Lobelia Herb — Really scarce and, correspondingly, really high-priced. Quote is seen at 95c. to $1.10 a pound.

A domestic botanical, lobelia was available at the start of the season at 75c. to 80c. a pound. Since then, the trend has been steadily upward as stocks went steadily downward.

Lycopodium—Rather weak currently, as indicated by the price range: $2.50 to $3 a pound. Poor interest is cited.

Witch Hazel Leaves—Very short, because of relatively small collections this past season. Leaves are priced at 55c. to 70c. a pound, the bark at 30c. to 35c.

FMC Pesticide Plant

—*Continued from page 5*

and leaf hopper on rice; boll weevil, boll worm, aphid, thrip and flea hopper on cotton. Production of insecticides for control of the imported fire ant also is planned.

John Camara, currently serving as office manager at Niagara's Greenville, Mississippi, plant, has been appointed to serve as plant manager when the Opelousas facilities are completed. This will be sometime around mid-February, 1961.

The Opelousas operation will represent Niagara's second production venture in Louisiana. The firm's technical chemicals department currently operates a unit at Belle Chasse. In all, Niagara operates some sixteen plants in the United States and two each in Canada and Mexico.

OPD Reports From Europe

Europe's Chemical Investment Mood

—*Continued from page 7*

mercial point of view," Mr. Lloyd explained, "but where, nevertheless, it may be necessary to refuse consent to transfer of control for reasons of national security or the significance of a particular firm or industry to our economic life."

In addition to the auto industry, the petroleum, chemical and drug industries have been major areas of American investment in Britain. US drug companies in particular control the biggest part of ethical drug manufacture in the UK and, with French and Swiss pharmaceutical firms, undoubtedly account for well over half the total ethical drug business in Britain.

Direct US investments in Eingland are now estimated at about $2.5 billion, of which the largest are Esso Standard Oil Company, Ford, Monsanto Chemical Company, Standard Vacuum Oil Company, Thomas Hedley & Co., Ltd. (UK branch of Procter & Gamble Company), Vauxhall, the Hoover Company and Eastman Kodak Company.

Monsanto Chairman Plays Big Role

Sir Miles Thomas, chairman of Monsanto Chemicals, Ltd., and former chairman of British Overseas Airways Corporation, was a leader in the movement to get government consent for the Ford stock buy.

He stated that a government bar to the bid would make mockery of British attempts to lure foreign investments. In another role, Sir Miles is chairman of the Development Corporation for Wales which is trying to increase industrialization in that part of Britain.

The line of questioning catalyzed by the Ford offer, though, asks if there is not a point beyond which American investment becomes a disadvantage. And this question is being asked in Britain and on the continent more seriously now than before the bid.

Holland, Switzerland and the Scandinavian countries have already taken steps which make it impossible for foreign investors or companies to take control of their popular "international" companies.

And any further attempts to limit the size of direct US investment in subsidiaries or joint ventures would fall most heavily on petroleum and chemical concerns which have been the leaders in that type of investment.

How independent of detailed US control overseas subsidiaries are is a hotly-debated point. Most British observers believe that Monsanto Chemicals, Ltd., owned two-thirds by Monsanto Chemical Company with the balance mostly in British hands, is run largely in London.

P&G's Thomas Hedley Unit

Thomas Hedley, the Procter & Gamble unit, is considered to be the opposite extreme with an American as chairman and many other Americans in the organization. P&G's control of Hedley is said to be detailed and close.

Under the existing arrangement, it is reported in London financial circles that Ford of England could spend up to $280,000 without the consent of Detroit. One American engineering firm subsidiary in Britain, though, is believed to have a limit of $14,000.

There are reports of other firms, particularly drug companies, with similar close financial control and one US parent is even said to require copies of all correspondence.

Urethanes: Coats Fit

—*Continued from page 7*

ing, "breathability," resistance to fungus and mildew, ease of application (brushed, dipped or syrayed).

Adding up these assets, Carbide's marketers are projecting a solid urethane future in these areas:

- Automotive: Treatment of rubber and plastic fixtures to ward off the effects of chemicals and abrasion. "Upholstery might be an early candidate," says Carbide.
- Sporting goods: In addition to golf balls, bowling pins can be improved—they would be less susceptible to chipping and could be seen better from the other end of the alley.
- Medical goods: Rubber gloves, aprons and similar accessories would have a "longer, cleaner life."
- Electrical-electronic components: Reliability would be increased.
- Floor and wood coverings: Urethanes would give "rugged protection, long-lasting gloss, and easy cleaning."
- Clothing: Good adhesion, high flexibility and "breathing" qualify the urethanes as ingredients of rainwear and tenting.

Int'l Minerals to Buy

—*Continued from page 3*

Bioferm's experience in this field is expected to be of assistance.

Bioferm, headquartered in Chicago, was most recently in the news for its discovery and development of "Thuricide," a microbial insecticide reportedly harmless to humans and other warm-blooded animals.

The company is a leading producer of Vitamin B_{12}, used both as a feed ingredient and a pharmaceutical, and has processes for feed industry antibiotics.

T. M. Ware, IMC's president, says the transaction will "widen IMC's activities in the fermentation field, provide new opportunities in the agricultural market through insecticides and feed supplements and open new avenues of diversification."

Negotiations for an exchange of stock are expected to be completed by the end of the year.

Bioferm's plant in Wasco, Calif., will continue without change as an operating unit under the Bioferm name, a spokesman for IMC says.

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CYCLOPENTYL BROMIDE B.P. 137-138° C.	Commercial
CYCLOPENTYLPROPIONIC ACID B.P. 130-132° C/12.	Commercial
CYCLOPENTYLPROPIONYL CHLORIDE B.P. 81-82° C/10.	Commercial
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USI and National Distillers Honor 25-Year Employees

A total of sixty-one employees of US Industrial Chemicals Company with more than twenty-five years of company service have been honored at six dinners across the country during the last few weeks.

The USI employees were part of a total of 451 receiving gold Tiffany watches for a quarter century of service to National Distillers & Chemical Corporation.

J. L. Rivet, USI's New Orleans division manager, ranked first in length of service with forty-six years. Mr. Rivet joined the company in 1914, at the age of sixteen. He has remained in the New Orleans sales division throughout his career and was named division manager in 1938.

A dinner in New York last week was the final one in the series of the twenty-five-year celebrations being held. Dinners were also held in Los Angeles, New Orleans, Chicago, Louisville and Cincinnati.

Water Pollution

—Continued from page 4

in this field have become "problems of the entire society."

He recommended that chemical companies freely share knowledge pertaining to water pollution as a solution of these problems "is not a determining factor in competitive production."

Despite great strides in environmental health improvement, the MCA president stated, there are still matters about which chemical makers are "less confident," a current and outstanding example being the testing for carcinogenic properties.

Mr. Hull cited synthetic detergents as an example of how pollution problems have ramified beyond the frontiers of the industry concerned.

"These are products," he said, "which the housewife would not wish to give up. However, they have had a technological impact on the sewage problems in many areas and on the water supply in many communities.

"As problems have become apparent, hundreds of thousands of dollars worth of research work has been accomplished by industry. If and when it is decided that these otherwise beneficial products are creating too great a hazard in the streams, then certainly society—of which we all are a part—may feel the consequences in terms of a poorer or different performance by some other product, possibly at an increased cost."

The Big Challenge

Lauren B. Hitchcock, president of Hitchcock Associates, New York, participating in the symposium, characterized air pollution control both by industry and by the people themselves, as one of the challenges of "the second industrial century."

Chemical engineers, he said, have the qualifications needed to combat the problem which causes "annual losses of 11 billion dollars in this country."

In an attempt to reduce this loss, national federal agencies and local and state governments are spending about $25 million annually and industry is spending "at least" $300 million per year. Mr. Hitchcock termed this a "token attack," but granted that there has been stepped up activity in this field in recent years.

Successful experiments in reducing noxious elements in exhaust gases, such as those thrown off by automobiles, were reported by another of the panel's participants.

Francis R. Taylor, of Franklin Institute Laboratories for Research & Development, Philadelphia, said that various chromites and chromium promoted iron oxides can "promote quite effectively the reduction of nitrogen oxides by reducing agents such as carbon monoxide and hydrogen."

"It has been found, moreover," he went on, "that the chromites are also able to promote the oxidation by oxygen of both carbon monoxide and hydrocarbons, including saturated and unsaturated hydrocarbons. By control of the oxygen concentration in exhaust streams, it has been possible to achieve simultaneously over 80 percent removal of nitric oxide and over 80 percent removal of carbon monoxide and hydrocarbons."

Mr. Francis conceded that his studies "were of limited scope" and that no attempt was made to study the long-term stability of the catalyss "under any reaction conditions or in the presence of any potential poisons."

RESEARCH ASSOCIATE: Dr. Lester E. Kuentzel, who is the first scientist in the Wyandotte Chemicals Corporation to receive the rank of research associate.

'Polyamine-T' Hiked a Cent

Union Carbide Chemical Company, division of Union Carbide Corporation, New York, has increased "Polyamine-T" one cent a pound. The new price, 12 cents a pound in tanks, is one cent higher in the West. Carbide says material will now be sold on a delivered basis in the East.

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Aerosol Industry Looks to Starches To Build Up Current Sales Volume

The aerosol industry, with prospects for retail sales of non-food packages in excess of 600 million units this year, believes it has another bread-and-butter winner in aerosol starches. Big laundry starch producers have been cautiously eyeing the development of spray starches on a regional basis for more than a year. A. E. Staley Manufacturing Company, largest starch producer in the country, has been test-marketing an aerosol product for the past three months at two midwest locations. Known as "Spray Sta-Flo," the product supplements the firm's liquid and dry starch products sold under the "Sta-Flo" tradename.

Corn Products Company is less definitive at present, but maintains a deep interest in spray starches. According to R. C. Greylow, director of product development for CP's Best Foods Division, "the situation is being watched very closely, but no decision has been made as to whether or not to enter the market with a product." Outsiders say Corn Products is a natural to hit the consumer market with an aerosol starch through the Best Foods Division.

CSMA AEROSOL WINNER: "Sprayclean Spot Remover," a product of Durasone (Sales) Ltd., London, England, which last week won the grand award in the 1960 aerosol packaging competition sponsored by the Chemical Specialties Manufacturers Association.

Simoniz Plans National Distribution

One tip-off that companies are gearing for a national distribution campaign in spray starches was given last month when Simoniz Company purchased "Reddi-Starch" from Union Starch & Refining Company, Columbus, Ind.

Union Starch, which had been marketing the product in the midwest and on the west coast, is known largely as a bulk starch supplier to commercial laundries and other industrial outlets but has never been deeply involved in consumer packaged goods.

Simoniz, with a number of entries already on grocery shelves (floor and furniture waxes, a drain cleaner and a vinyl sponge), has kicked off a nation-wide distribution program for "Reddi-Starch" which will be stepped up at the first of the year.

Although the name has become virtually synonymous with automotive waxes, Simoniz points out that fully two-thirds of the company's sales are in household products and that the only departure in the acquisition of "Reddi-Starch" is that it is not a wax based item.

Simoniz is currently test-marketing a liquid, one-quart edition of "Reddi-Starch" in Indiana and Ohio and plans to broaden and extend marketing of the liquid product.

Arthur F. Connolly, general sales manager for Simoniz, cites the great willingness on the part of consumers to try new spray starches.

"Although volume is now quite small, we believe that proper marketing effort and solid product development could ultimately produce a $100 million market for this type of product," Mr. Connolly says.

Boyle-Midway Has 'Easy-On' Spray

Boyle-Midway Division of American Home Products Corporation is also betting on starch sprays. The company came into the market with national distribution of "Easy-On" in July and reports initial studies indicate the contracting household starch market may be in for a [illegible] of expansion due to aerosol packaging.

[illegible]e Staley, Simoniz and others who [illegible]ploy custom fillers to pack their products, Boyle-Midway has long been involved in the aerosol end of the business. In fact, many say it is the largest producer of aerosol products in the country.

Other prominent entries on the consumer level are "Glis" (Aerosol Corporation of America) and, recently, "Lestoil Liquid Spray Starch."

On the industrial level, National Starch & Chemical Corporation has culminated a year's work in the development of a new group of specialty starches by marketing "Aero-Sprays" suitable for aerosol and spray-on-type liquid starches. National spokesmen say the company has no interest in entering the consumer market at this time.

Three hybrid, corn-based starches in the new line are currently available: "National 1135," a cooked starch; "Kosol," a cold-water swelling product, and "National 75218," a concentrated liquid starch for dilution by the consumer.

Huron Milling Division of Hercules Powder Company is another industrial starch producer keeping a wary eye on growing specialty starch applications.

Although the bulk of Huron's output goes to commercial laundries and textile and paper-making consumers, the company has also been working in conjunction with a propellant manufacturer to develop a starch formulation suitable for aerosols.

Most starch makers agree that acceptance of an aerosol product will depend on sales effort and product development. In this case, they point out, marketing effort has been excellent.

But product development is a little more complex and involves the bringing together of optimum performances in container, valve and raw material components.

Starch producers have moved carefully in the matter of aerosol packaging. For one thing, they don't expect a big increase in volume as a result of expanding aerosol starch sales.

Talking in aerosol units means talking in ounces, not pounds. The average aerosol formulation utilizes a 4 percent concentration of starch with the balance being made up of preservative, inhibitor, fragrance and a big percentage of water.

Not Much Starch Is Involved

On this basis, sales of a million 16-ounce aerosol units would account for a bare 40,000 pounds of starch, compared with total estimated retail sales of laundry starch, by grocers, of 71.4 million pounds in the first nine months of this year.

The latter figure compares with total retail sales of laundry starch by grocers of 105 million pounds last year and 107.8 million pounds in 1958.

The total grocery starch market amounts to approximately 150 million pounds a year, 70 percent of which goes into laundry starch products and 30 percent into food uses.

Value of the retail laundry starch market during the past ten years is estimated at $35-$40 million.

Thus, profit for starch makers, if such there be, is in the aerosol package. And, here too, costs of valve, cap, container, propellant and, in some cases, the services of a custom filler, make it necessary for

—Continued on page 64

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Essential Oils, Aromatics

A slightly weaker tone was noted among the essential oils. Amyris declined 5 cents per pound, Spanish spike lavender declined 45 cents per pound, petitgrain declined 10 cents per pound and clary sage declined $3 per pound. Among the advances are ethyl vanillin, $1.10 per pound, lemongrass, 30 cents per pound, ocotea cymbarum, 1 cent per pound, vanillin, 50 cents per pound and wormwood, 25 cents per pound.

From the Canadian Department of Trade and Commerce comes the following information:

India has set up an Export Promotion Council.

In 1959 Indian exports of spices were valued at about $20 million.

The problems facing the Indian spice trade are varied. In pepper, export values have declined because of stiff competition from Sarawak and Indonesia.

In cardamom, besides competition from Guatemala, the main problem facing Indian is the invention of synthetic substitutes. Ginger exports have declined since 1958, mainly because of import restriction in west Asian countries, increasing competition from Jamaica and Sierra Leone, and changes in consumer preference.

The new council will study these problems, undertake market surveys and research, send out trade delegations, prescribe quality standards and attend to importers' complaints.

According to Paul Tornow, research director of a mint oil concern, who spoke recently before a meeting of the Flavor Chemists, the state of Washington now produces more mint oils than all other states combined. This year that state will produce about 1 million pounds each of peppermint and spearmint oils.

Mr. Tornow said that peppermint oils produced in the US fall roughly into three categories, the best coming from the midwest, the second best from the west coast of Oregon and the third best from Washington.

Price Trends

Advanced
Ethyl vanillin, $1.10 per lb.
Lemongrass, 30c. per lb.
Ocotea cymbarum, 1c. per lb.
Vanillin, 50c. per lb.
Wormwood, 25c. per lb.

Reduced

Reduced
Amyris, 5c. per lb.
Lavender, Spanish spike, 45c. per lb.
Petitgrain, 10c. per lb.
Sage, clary, $3 per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
145.51	145.72	145.57	146.67

For Current Prices See Page 11

Essential Oils

Amyris—From its previous high $1.55 per pound, this oil has come down to $1.50 per pound.

Cananga—Both the native and the rectified material are said to be firming. The OPD price range, however, remains unchanged.

Clove Leaf—News from source is that the market is easing off a bit.

Grapefruit—A weakening market, grapefruit remains at its previous level, $3 per pound.

Lavender—Spanish spike material has declined in price. From its previously quoted price, $2.20 per pound, it has gone down to $1.75 per pound.

Lemon—Material from Messina is said to be firming.

Lemongrass—In spite of reports from source that the market is easing off, spot prices are rising. From the previously quoted low, $2.10 per pound, the price has risen drastically to $2.40 per pound.

Lime—A few dealers are offering Mexican material for as little as $5 per pound.

Most material, however, is selling for $5.35 per pound.

Ocotea Cymbarum—From its previous quotation, 45c. per pound, ocotea cymbarum has advanced to 46c. per pound.

Peppermint—Source market is said to be strong. Some material is available.

Petitgrain—South American material is weakening. From its previous price, $2.40 per pound, it has declined to $2.30 per pound.

Sage—Clary material is weakening.

From its previous price, $15 per pound, it has dropped to $12 per pound.

Dalmation and Spanish, however, remain at their previous levels. Dalmation remains at $2.85 per pound and Spanish remains at $1.25 per pound.

Sandalwood—News from source is that market conditions remain about as they have been for the past several weeks. Even though material is said to be scarce, some sales are being made, it is reported.

New crop material will be auctioned off during the third week in December. The quantity of material that goes to the block and the demand for material at the time of the auction will determine the future price.

It has been reported that some 600 tons of wood are expected to be auctioned.

Spearmint—News from source is that the market is quiet.

Spot prices remain at their previously quoted level, $8 per pound.

Wormwood—From its previous price, $4.50 per pound, material has advanced to $4.75 per pound.

Aromatic Chemicals

Ethyl Vanillin—Effective as of last week on spot and as of January 1 on contract are the following prices for ethyl vanillin: 500 pounds or over packed in 100 pound drums, $6.75 per pound; 500 pounds or over packed in 25 pounds drums, $6.85 per pound; 100 pounds or over packed in 100 pound drums, $7.40 per pound; 100 pounds or over packed in 25 pound drums, $7.50 per pound.

Vanillin—Prices range as follows: 2,000 pound lots packed in 100 pound drums, $3 per pound; less than 2,000 pounds packed in 100 pound drums, $3.20 to $3.30 per pound.

Seeds and Spices

Cassia—Broken material from Saigon has advanced in price from 45c. per pound to 46c. per pound.

Cloves—Zanzibar number one material has declined in price. From its previous level, 42c. per pound, it has gone down to 41c. per pound.

Dillseed—Indian dewhiskered material has advanced from its previous level, 16c. per pound, to 17c. per pound.

Ginger—Sierra Leone material has advanced from 33c. per pound to 35½c. per pound. Jamaica number three material has advanced from 26c. per pound to 27c. per pound.

Mace—Siauw number one prime material has declined from $1.60 per pound to $1.58 per pound. Siauw number one whole has declined from $1.55 per pound to $1.53 per pound.

Nutmegs—East Indian material has declined in price. From its previous high $1.42 per pound, it has gone down to $1.40 per pound.

Paprika—Yugoslavian material declined in price. From its previous level, 37c. per pound, it dropped to 31c. per pound.

Pepper—Malabar black pepper declined considerably. From its previous price, 49c. per pound, it declined to 45c. per pound. From its previous price, 49c. per pound, Lampong black declined to 45c. per pound.

Muntok white, on the other hand, remained at its previous listing, 74c. per pound.

From the Foreign Agriculture Circular, published by the US Department of Agriculture in Washington, we have the following information about pepper production in India.

India produces black pepper almost exclusively. During 1959 production was estimated at 58.2 million pounds, down slightly from the 1958 production of 59.6 million pounds.

India has replaced Indonesia as the world's largest postwar producer, since production was severely curtailed in Indonesia because of the Japanese occu-

Essential Oils

pation, but in 1959 Indonesia regained its prewar position.

Practically all of the pepper grown in India is in the State of Kerala. Insignificant quantities are produced in the states of Madras and Mysore.

The crop is primarily a smallholder enterprise. More than half of the holdings are less than one acre.

Acreage devoted to pepper has increased slightly during the past few years but production has remained relatively stable. This may be due in part to the generally uneconomical size of the gardens and a lack of improvement capital.

The improvement in pepper prices, coupled with the Sarawak government's interest in assisting the pepper trade, is expected to benefit production during the current year

However, since pepper went from a high value crop during early postwar years to a low value one in recent years, there is much less interest in pepper growing.

Production during 1959 of 18.7 million pounds was the third consecutive year of falling production, and represented a drop of 58 percent from the record 1956 crop of 44.4 million pounds.

Early this year it was announced that a pepper stabilization tried in one year of Sarawak would be applied to all of the country.

This plan involves low interest loans by the Sarawak Development Finance Corporation to pepper growers, dealers, and exporters in exchange for the deposit of bags of pepper in storage banks, pending opportune marketing of the crop during the year.

The object is to counteract the wide fluctuations in pepper prices resulting from marketing the pepper immediately after harvest.

Vanilla Beans—The market weakened slightly.

Bourbon material declined from $8.25 per pound to $8 per pound and Mexican cut material declined from $8.50 per pound to $8 per pound.

Mexican whole beans, on the other hand, remained at their previous listing, $9 per pound.

Rexall Wants

—*Continued from page 3*

get into production by mid-1961, will put Rexall in the lush midwest market—an area not easily reached by its two present polystyrene plants at Holyoke, Mass., and Santa Ana, Calif.

How big a plum is the midwest market? In 1959, it accounted for some 306 million pounds, or some 46 percent of the polystyrene sold in the country.

It is the center for the refrigeration, appliance, housewares and wall tile end-use markets and also includes major portions of other key polystyrene consuming industries.

The midwest plant will get its chief raw material—styrene—from Odessa Styrene Company, a unit of El Paso Natural Gas Products Company. Odessa increased its styrene capacity to 60 million pounds in May and, last month, added another 20 million pounds.

Rexall and El Paso have already announced a $75 million complex of plants at Odessa that will make a broad range of chemicals. The first units to be built are slated to start production in early '62 and will produce ethylene, propylene and conventional polyethylene.

Rexall Adopts "Elrex" Trade Name

From here on out, Rexall will use a new trade name—"Elrex"— for its complex line of thermoplastics. The name reflects Rexall's joint venture with El Paso.

Polystyrene, until now, has been sold by Rexall under the trade names "Granada" (from Granada Plastics Company, Santa Ana) and "Seamco" (from Seamco Chemical Company, Holyoke).

Both companies are wholly-owned subsidiaries of Rexall Chemical. In the future, however, they will be production organizations only.

Rexall's polystyrene expansion move comes in the wake of industry-wide acceptance of an 18¼-cent price for general-purpose material. This is some 3¼ cents below the price that prevailed previously. What's Rexall's reaction to all this?

"The next change in the price of general-purpose polystyrene will be an increase," says Carl Setterstrom, vice-president of marketing.

"Polystyrene is just too good a polymer and there is too little manufacturing profit at the present price."

He concedes that "material from liquidation" will appear on the market from time to time "at distress prices," but, he says, "the price of prime material will hold steady for a while and then increase."

Brown, Kroeger Elected

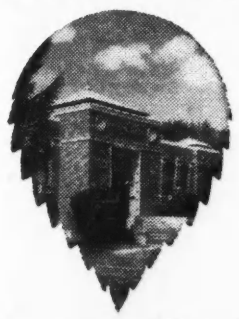
—*Continued from page 7*

duPont de Nemours & Co., were elected SOCMA governors for three-year terms.

Paul Mayfield, vice-president and a director of Hercules Powder Company, was named to a two-year term on the association's board of governors. He fills the vacancy created by the elevation of Mr. Kroeger to an SOCMA vice-presidency.

Elected to honorary lifetime memberships in the association were the following:

Norman C. Babcock, retired marketing vice-president of Union Carbide Olefins Company; Paul K. Lawrence, retired manager of trade relations for duPont's dyes and chemicals division, and Sidney C. Moody, retired vice-president of American Cyanamid Company.



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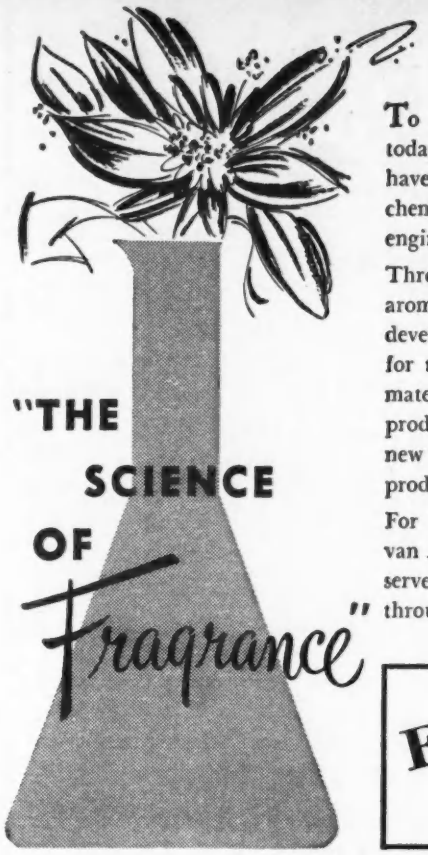

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Coatings Materials

Phthalate plasticizer listings will be advanced one-half cent per pound on January 1, according to an announcement of one leading producer. The phthalate ester increase follows similar boosts for naphthalene and phthalic anhydride (See Coal Chemicals Market, p. 50, for further details). The new price becomes effective today (Dec. 12)) on spot material and is expected to be quickly adopted by other producers. The one-half cent per pound increase applies to all the phthalates with the exception of dimethyl which will be raised three-quarter cent per pound. Also due for revision on January 1 is the company's West Coast differential. It will be reduced from the current 1½ cents to ¾ cent per pound.

Sales of paint, varnish and lacquer in October bettered last year's performance by one percent, reports the Bureau of Census in its monthly report. Sales in October totaled $140.7 million with production estimated at 53.4 million gallons. Compared to the previous month, sales were 7 percent lower with production down 5 percent. With the exception of lacquer and industrial sales, declines were uniform for all other categories. Lacquer sales went from $16.9 million in September to $17.5 million in October. Industrial sales climbed from $61.8 million in September to $62.1 million in October.

In the second price schedule for examination to cross this desk, prime pigments will be boosted an average of 5 cents per pound effective January 1. Three cents per pound increases will be adopted for blues, 5 cents per pound for maroons, 5 cents per pound for reds with some grades of the oranges scheduled for 8 cents per pound price hikes.

A new quinacridone pigment with a brilliant red-violet hue is reported now available from one leading pigment producer. The new pigment is said to be formulated for use in automotive and other industrial finishes, as well as printing inks, vinyl products and textile printing inks.

The new pigment reportedly gives fiery red shades with molybdate orange, clean pastel tones with titanium dioxide bright iridescent red-violet shades with non-leafing aluminum, and brilliant yellow-toned iridescent maroon colors with aluminum and gold paste or other yellow and orange pigments.

On the basis of tests conducted by the company, samples of the pigments showed good color retention.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
103.15	103.15	103.14	103.03

For Current Prices See Page 11

Prime Pigments

Blue Pigments—Slated for a three cent per pound increase are all shades of the iron blues (including alkali resisting types) according to a recently released price schedule one leading producer. The new schedule goes into effect on January 1.

The new price for the iron blues C. P. (except the alkali resisting types) will be 55 cents per pound, in quantities of more than 23,000 pounds. In shipments of 2,000 pounds or more the new listing calls for 56 cents per pound.

Alkali resisting blues will be boosted to 60 cents per pound, on shipments of 23,000 pounds or more, and 61 cents per pound for shipments of 2,000 pounds or more. All types of soluble blues C. P. will be quoted at 58 cents per pound as of January 1.

Greens—Pigment green B will be newly quoted at $1.55 per pound, according to the latest of announced price schedules. Present price is $1.50 per pound. No other green pigments are affected by the announcement, although the producer reserves the right to make small changes when they become necessary.

Maroons—Several grades of the maroon pigments will be increased 5 cents per pound with one pigment coming in for a 10 cent per pound increase. BON maroon-calcium colors will go from $1.95 to $2 per pound. The softened type BON calcium will beat $2.30 per pound, up 5c. from the current $2.25 per pound. Softened type BON manganese will also be boosted 5c. per pound to $2.35 per pound. One other maroon color will be boosted 10c. per pound, from $2.25 to $2.35 per pound.

Oranges—Dinitraniline orange will go from $1.56 to $1.61 per pound. Orthonitraniline will be newly quoted at $1.50, up 8c. per pound from the current $1.42.

Reds—All shades of the calcium lithol toners C. P. will be raised 5 cents per pound as of January 1, according to the latest of two recently received price schedules. Also coming in for 5 cent boosts are all shades of the para toners, like C toners and reduced para reds.

The new price for the calcium lithol toners will be $1.03 as compared to the current 98c. per pound. Para toners are slated to go from $1.21 per pound to $1.26 per pound while the reduced para toners (10 percent) will be quoted at 31 cents per pound, up 1c. from the current 30 cents per pound.

Red lake C toners will be raised from the present $1.25 per pound to $1.30. C. P. chlorinated para toners will go from $1.36 to $1.41 per pound. The resinated rubine toners and the resinated lithol rubine toners will be newly quoted at $1.52 per pound, compared to the present price of $1.47 per pound.

Lithol compounds for rubber and red lake C compounds for rubber will be increased 5 cents per pound. Lithol compounds will go from $1.03 to $1.08 and the lake C compounds from $1.23 to $1.28 per pound.

Yellows—Regular benzidine toners will be increased 10c per pound, as well as the stable benzidine and strong stable benzidine toners. In each case, the new price will be $2.30, compared to the current listing of $2.20 per pound.

Violet Methyl Toners—A 15 cent increase is slated to take effect on January 1 on the PMA methyl violet toners. New price will be $2.95 per pound, compared to the current $2.80 per pound.

Natural Resins

Gums—The listings for all grades of the gums are reported to be firmly established at their recently advanced listings. Some added business is noted for the gums as a replacement for some of the higher-priced, hard-to-find wood rosins. Overall market picture is said to be routine.

Shellac—With a poor Fall crop behind them, and some large-scale buying on the part of one Far Eastern country, the foreign market for shellac is reported to be quiet and firm. Listings for the domestic market, felt to be secure from most foreign influence, are expected to hold at their current levels. Business on the do-

Coatings Shipments Output: October

	Factory Shipments Dollars		Reported productions Gallons[1]	
	October	September	October	September
Trade sales	$78,600,000	$89,100,000	26,700,000	28,000,000
Industrial sales, total	62,100,000	61,800,000	26,700,000	27,400,000
Paint and varnish	44,600,000	44,900,000	19,700,000	20,200,000
Lacquer	17,500,000	16,900,000	7,000,000	7,200,000
Overall totals	140,700,000	150,900,000	53,400,000	56,400,000

Totals sales—Jan.-Oct.: $1,123,000,000.

[1] Estimated total production. About 2 percent of this total was imputed for companies that reported only dollar sales.

mestic market is reported to be about what is expected for this time of the year.

Naval Stores

A revival of the lagging naval stores industry was called for in a paper presented last week at a meeting of the American Oil Chemists Society. The revival is needed to provide a major source of rosin for the future. The paper and pulp industry are contributing a substantial amount of rosin but will not be able to meet the total demands for the future, the author states.

Citing the high levels of operating capacity for the paper and pulp industry over the past ten years, the author reports that many members of the industry feel that present capacity is in excess of actual demand for tall oil rosin. Offsetting this are the following favorable factors:

- Sufficient fractionation capacity by 1961 to process 500,000 tons of crude tall oil annually with availability set for 1963.
- An elevated price structure for tall oil rosin resulting from the strong market situation for gum and wood rosin.
- The incentive based on the price of crude tall oil and the demand for tall oil rosin to fully fractionate out all the rosin acids.

In calling for a rehabilitation the author, viewing the naval stores industry from the standpoint of the chemical industry finds very little in the way of a growth pattern. For the crop year ending March 31, 1909 the sole source of rosin was gum and the production amounted to 1,998 million pounds. Fifty-one years later, as reported in the crop year ending March 31, 1960, gum and wood rosin combined amounted to 1,532 million pounds with tall oil industry providing 382,970 drums during the same period. Thus, in fifty-one years, there has been no total growth, but a wide diversification in that the gum rosin output now constitutes a minor portion of the industry and has been replaced by wood rosin.

Currently, the wood naval stores segment of the industry, while during a remarkable job in production, is faced with a decline of supplies of wood stumps. As the supplies of stumps declines in this area the decline in wood rosin production should be substantial.

In conclusion, the author feels that with the price of rosin over the past year going up very drastically, there is the incentive for present consumers to either reduce their requirements where possible or obtain substitutes. The alternative to lost sales due to substitutions is the loss of production by not providing the incentive that appears to be required.

If it is a choice between two evils, the author maintains that the way out is to find ways and means to increase production to meet the demands both of the present and the future.

Pine Gum—For the week ended November 26, the average price paid per standard barrel for commercial crude gum was $39.70, compared to $41.80 for the previous week and the $28.10 paid a year ago. No loan was reported.

The volume of gum deliveries for the week ended Dec. 2 was 17,400 as against 17,500 for the week earlier and 14,200 a year ago. Loan was reported at 475. The average barrel content of turpentine was 7.34 gallons with rosin content at 296.9 pounds. Gum grading was reported at: 4 WG; 41 N; 41 M; and 14 K and below. The weekly weighted average for turpentine was 46¼c. per gallon.

Rosin, Gum
(USDA, per 100 lbs.)

	Fri. Dec. 2	Mon. Dec. 5	Tues. Dec. 6	Wed. Dec. 7	Thurs. Dec. 8
Drums—					
Bags—					
Tankcars (for week ended Dec. 9)—					
K or better, $13.75					
Sales, USDA					
1†		1†	...	...	

New York
(Per 100 lbs., c.l., Friday)
K-M, $17; N, $17.10; WG, $18.10; WW, $18.25

Turpentine, Gum
(USDA, per gal., 7.2 lbs.)

Price	.46½	...	.46½	...	...
Sales	8.000¶	...	8.000¶	...	...

† Tankcars. ¶ Gallons.

Chemical Men Buck Tide

—*Continued from page 4*

justed annual rate of over $35.5 billion in the last quarter of this year, and $35 billion in the first quarter of 1961. Actual outlays in the second and third quarters of this year were at annual rates of $36.2 billion and $36 billion, respectively.

Plant and equipment expenditures for the year 1960 as a whole are now scheduled to total $35,750 million, about 10 percent above 1959. The estimate is about 4 percent below the amount projected in the early part of this year.

The announcement said that for industry as a whole, plant and equipment expenditures have been easing very slowly since the second quarter of this year, and this trend is expected to continue in the manufacturing and mining industries, but railroads and other transportation companies have programmed sharp reductions in spending in the first quarter of 1961. Investment by the public utilities and by commercial and communication firms is being maintained over this period, it was stated.

ICI Eyes Soviet Process

—*Continued from page 3*

tion of certain types of nylon, particularly that used in tire cord.

According to the press reports, Mr. Chambers said experts were investigating other Soviet chemical processes and that it was possible Britain would buy more Soviet process licenses in the next few years than it sells to Russia.

Negotiations with the Soviets for purchase of an ICI polyethylene process license have started. Also in Moscow for these talks is the engineering company Simon-Carves which would build the polyethylene plants in association with ICI. Mr. Chambers is said to have stated this would be the first of many agreements on chemical processes.

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Trade Name Chemicals

—*Continued from page 59*

a market to have potential for several million units for a company to enter the field with a new product.

Also, the marketing of a suitable spray starch has brought out a number of technical difficulties that have had to be overcome.

In a water medium, a corrosion problem is encountered. Coating of the can with polyethylene or an epoxy or oleoresinous coating beats corrosion, but pushes up container costs 5-7 percent.

Other propellants may be highly combustible and difficult to work with. Isobutane, for example, is such a material.

Much work has also had to be done on development of a stable starch emulsion that would not settle out in the can and cause an uneven spray or clog aerosol nozzles.

Despite the limitations, basic starch producers are being drawn into the aerosol arena by the lure of highly promising test-marketing results.

With a continued expansion in the national economy and higher per capita income, these producers feel the housewife is ready and willing to pay a premium for an aerosol starch (average 79 cents for a 16-ounce can) in order to take advantage of the convenience factor.

Initial sales impact in the pressurized starches will be apparent for the first time this year. But the key to further progress, sources say, is the speed with which the products move off the grocers' shelves and the amount of repeat business that materializes next year.

Plastic Starches Also Show Promise

Vegetable starches have stepped out ahead in the aerosol starch market. However, plastic starches (based on polyvinyl acetate) show promise. Some difficulties have cropped up.

The plastic starches are semi-permanent, last for ten to fifteen washings. This advantage, can be turned to disadvantage if the consumer re-starches a garment by mistake. Vegetable starches, on the other hand, wash out immediately.

Another problem with some plastic starch materials has been that they require careful compounding by the packager with other ingredients to give ironing ease and increase shelf life.

Otherwise, the product tends to separate out into layers during storage thus detracting from the appearance of the starch and causing draggy, slow ironing, especially if the housewife neglects to agitate the solution before using.

Polyvinyl Chemicals, Inc., which recently came out with "NeoVac" plastic starches, reports this difficulty has been overcome by building the essential and desirable qualities for a plastic starch into the "NeoVac" plastic copolymer itself. Only blending with water is required by the packager.

The company's "NeoVac V21P" has been modified specifically for aerosol packaging.

News Briefs

• **Aerosol Techniques, Inc.**, Bridgeport, Conn., is filling "Lestoil Liquid Spray Starch" for Lestoil, Holyoke, Mass.

Lestoil says other company products are suitable for packaging in an aerosol, but for the present only the new starch product will be marketed in a pressurized can.

• **Morningstar-Paisley, Inc.**, is marketing an aerosol starch under the "Starfilm" tradename. The company says the product has shown exceptional viscosity stability over long periods in storage.

• **Pennsalt Chemicals Corporation** will introduce two new industrial floor surfacing products, "Penntrowel Latex" and "Color Penntrowel," at the Plant Maintenance and Engineering Show in Chicago January 23 to 26.

The company's corrosion engineering products department says "Penntrowel Latex" is a wear-resistant, cement-latex surfacing specially designed for industrial use. The product may be applied in thicknesses down to one-quarter inch and can be feathered out when repairing patches.

• **Rubba, Inc.**, New York, announces development of a new polyethylene adhesive, "Rubbatex," which makes possible the manufacture of multi-wall shipping sacks utilizing the best qualities of polyethylene and paper.

• **E. A. Staley Manufacturing Company** completed arrangements last week with Bu-Tay Products, Ltd., Los Angeles, for addition of two of Bu-Tay's household laundry aids to the Staley grocery products line.

Staley will now manufacture and market "Raindrops" brand water softening compound and "Diaper-Sweet" brand diaper washing deodorizer.

F. W. Apperson, Staley grocery products division manager, says the products will continue to be made at Los Angeles.

Hydrazine Breakthrough?

—*Continued from page 3*

small capsule reactor loaded with fissionable materials is suspended in liquid ammonia within a swimming-pool type atomic reactor.

This exposes the ammonia to bombardment by neutrons, transforming its chemical bonds and converting its components into hydrazine.

These experiments have been run on a batch basis, but the company's price projection is based on a continuous process using uranium dioxide.

The fact that this process still exists only on paper is the major cause for skepticism among some trade observers.

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Oils, Fats and Waxes

Feature of the oils and fats market last week was the sharp decline in crude coconut oil as a result of the sale of more than 13 million pounds of oil from the government stockpile for domestic account. This caused the Pacific coast market to drop ½ cent per pound. The market rallied later and regained ¼ cent. Bids however were still ¼ cent below offerings. Copra was off $5 per ton, but closed steadier with the European market. Other edible oils also were firmer. Corn and cottonseed oils were fractionally higher. Soybean oil remained firm because of heavy export interest. Peanut oil remained steady. Olive oil rallied and advanced 10 cents per gallon on spot reflecting the active European demand for Spanish and Tunisian oils which boosted shipments $1.50 per 100 kilos.

While trading was slow in tallow and greases, the market was without change and remained on a steady basis. Offerings were light as sellers were sold up, but consumers also showed little interest in replacements.

Additional price gains in flaxseed caused linseed oil crushers to raise quotations 3/10 cent per pound for all positions. Trading became quite active before the higher schedule became effective. Keen competition in tung oil combined with slow demand kept the market unsettled. Offerings covered a wide range depending upon seller. Brazilian castor was quiet and unchanged. Crude menhaden remained firm at the recent advance as were refined fish grades.

Soybean meal demand was more active and advanced $1 per ton. Improved demand for linseed meal raised quotations 50 cents per ton. Cottonseed and peanut meals were inactive and unchanged.

Price Trends

Advanced

Carnauba wax, chalky, 1c. per lb.
No. 3, crude, Ceara, 1c. per lb.
Parnahyba, 1c. to 2c. per lb.
Corn oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Cottonseed oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Linseed meal, 50c. per lb.
Linseed oil, 3 10c. per lb.
Linseed oil acid, 3/10c. per lb.
Olive oil, spot, 10c. per gal.
Peanut oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb.
Soybean oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb.
Soybean meal, $1 per ton

Reduced

Cocoa butter, 1c. per lb.
Coconut oil, crude, 3/8c. per lb.
Refd., ½c. per lb.
Copra, $5 per ton.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
105.10	105.07	106.47	123.32

For Current Prices See Page 11

Vegetable Oils

Castor—Buying interest lagged. Domestic oil was quiet and unchanged. No. 1 Brazilian oil also was inactive and more or less nominal at 13¼c. per pound, tankcars, New York, prompt delivery.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	.....	2.992.000
Previous week	.....	2.480.000
Corresponding week, 1959	.....	800.000
Total this year	3.503.450	85.708.000
Corresponding period, 1959	24.569.300	91,572.000

Coconut—Market was sharply lower reflecting the sale of more than 13,000,000 pounds of crude from the government stockpile to the domestic trade. Crude shipments were weaker and sold down to 11¾c. per pound tankcars, f.o.b. Pacific Coast, December-January. Market closed steadier at 12c. asked. The New York market also was easier and nominal at 13⅞c. tankcars, New York basis.

The General Services Administration last week sold 13,363,910 pounds of crude coconut oil at 12c. to 12.61c. per pound, bulk from the government stock-pile for domestic delivery.

Corn—Crude was strong and fractionally higher. Sales were reported at 14c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined was raised to 17.73c., tankcars, New York basis.

Cottonseed—Improved trading for export and refiners account stiffened futures last week on the New York Produce Exchange. Trading was fairly active and the market advanced fractionally. Despite tenders, the December delivery reached a new season's high. Tenders on December increased to 56 contracts and were readily stopped. Cash refined oil was firmer with higher crude. Refined salad oil was quoted at 13⅞c. per pound, tankcars, New York, prompt delivery.

Demand for crude was active for refiners account. Active trading took place at ¼c. higher. Sales were reported at 10⅛c. per pound, tankcars, Valley; 10¼c. to 10½c. in the southeast as to location; 10⅛c. bid Waco and 10c. bid, Lubbock.

Final government cotton crop estimate for this season indicated production December 1 at 14,309,000 bales compared with 14,558,000 bales last year. Yield per acre was 448 pounds against 462 pounds last year. Acreage harvested this year was placed at 15,316,000 acres against 15,090,000 bales last season and 10 year average of 19,969,000 bales.

Linseed—Market was firmer, reflecting higher cost of flaxseed, which scored further gains last week. Raw oil was raised 3/10c. per pound for all positions. Trading was fairly active for prompt and forward delivery before the advance became effective. Raw oil was lifted to 12.60c. per pound, tankcars, Minneapolis, December-February delivery; 12.80c. March-May and 13.72c., f.o.b. New York.

Olive—The spot market was strong and higher as a result of the active demand for Spanish and Tunisian oils for shipment to Greece and Italy. This advanced shipments of Spanish oil $1.50 to $51 per 100 kilos, drums, f.o.b. ports for prompt and later shipment. The spot market advanced to $2.35 to $2.40 per gallon, drums, spot, depending upon quantity and quality, with trading reported thereat.

Peanut—Trading was spotty. Crude was steadier with sales at 12⅝c. per pound, tankcars, f.o.b. mills, nearby shipment. Refined oil was quoted at 15⅞c. tankcars, New York basis.

Soybean—Trading was active for export. Crude closed firmer at 10c. per pound, tankcars, Decatur, unrestricted for prompt shipment. Refined salad was maintained at 12¼c., tankcars, New York, prompt delivery. Export sales were reported totaling 25,000 tons soybean and cottonseed oils for shipment to Greece, Korea and East Pakistan last week.

Tung — Consuming interest continued slow. Competition was keen and prices covered a range from 22¼c to 22½c. per pound, tankcars, New York, prompt delivery, according to seller and quantity. Drums were unchanged at 22¼c. to 22½c., spot, as to quantity. Domestic oil was without change at 22¼c., tankcars, f.o.b. mills for immediate delivery and ¼c. less for second half December.

The Dallas office, Commodity Stabilization Service, reported the sale of 1.5 million pounds of tung oil at 15.155c. per pound, bulk for export last week. Bids for another offering of the same amount will be opened Tuesday, December 13.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, December 9, follow:

	Sales	High	Low	Close
		Cents per Pound		
Dec.	130	12.21	11.90	12.29@12.30
March	233	12.29	11.95	12.16S
May	354	12.36	12.06	12.23S
July	229	12.41	12.15	12.27S
Sept.	9	12.30	12.30	12.10 Bid
Oct.	29	12.21	12.08	12.09S

Total sales and switches, 984 contracts.

Miscellaneous

Cocoa Butter—Market quiet and lower. Prices declined 1c. to 63c. to 68c. per pound, spot, depending upon quantity.

Copra—Buying interest was slow. Shipments were easy but closed steady. Prompt shipment was quoted at $162.50 per ton c.i.f. Pacific coast.

Flaxseed—Crushers advanced bids on cash flaxseed another 1c. a bushel. Strong undertone persisted at the higher level, substantial trading accomplished at 2c.

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Oils, Fats and Waxes

additional "edges." Bids were $2.85 a bushel, spot and to-arrive, basis Minneapolis. To-arrive bookings increased materially on the advance, spot business near a standstill. Crushers became more aggressive buyers after sizable linseed oil bookings.

Fats and Greases

Greases—Trading lagged. Market was unchanged and steady. Choice white held at 8¾c. per pound, tankcars, delivered and yellow, 5c. to 5⅛c. same basis.

Lard—Market was quiet and unchanged. Cash lard was nominal at 10.20c. per pound, drums, Chicago.

Tallow—Demand was restricted to actual needs. Market was unchanged and steady. Buyers showed little interest with sellers sold up and not offering freely. Bleachable fancy held at 6c. per pound, tankcars, delivered; prime, 5⅞c.; guaranteed fancy, 6½c.; special, 5½c. and No. 1, 5c. to 5⅛c., same basis. Export business was reported light. Guaranteed fancy was quoted at 6½c., bulk, f.o.b. steamer and 7½c., drums, f.a.s.

Cake and Meal

Cottonseed Meal—Trading for export and domestic needs continued quiet. Prices were unchanged. Meal 41 percent was quoted at $54 per ton, sacked, Mississippi Valley; $58 to $59, Alabama and Georgia for prompt shipment.

Linseed Meal—This market was firmer reflecting improved formula feed business, higher flaxseed costs. Trading was light, confined to spot cars for nearby needs. Inquiry increased for deferred requirements but premiums proved deterrent to any appreciable volume. Prices were 50c. higher, for extracted meal quoted at $52.50 spot, and $53 December-January. Old process meal was steady at $58.50 for December and $59.50, January-March.

Soybean Meal—This market was more active and closed higher. Feed business

—*Continued on page 68*

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Petroleum Derivatives

The recessionary note sounding out across the land does not seem to have been heard in the petroleum derivatives area of the economy. Most products are moving well with demand for some—notably benzene—racing ahead of available supply. Toluene continues firm with demand moving up on the basis of onrushing "Hydeal" requirements. Noted last week along these lines was the offer made to a toluene supplier of an even swap—20 cents-a-gallon xylene for 18½ cents-a-gallon toluene.

Xylene demand, however, is expected to dip soon on the basis of predicted auto production cuts in the face of mounting car inventory. Poor appliance sales have also cut into the metal finishing sales area for solvents.

Waxes are steady with demand consistently satisfactory and supply readily available to meet needs.

Highlights of Bureau of Mines' monthly crude petroleum and petroleum products report for September show crude production and crude runs to stills for that month higher than August.

Also up were stocks of refined products and wholesale prices of crude petroleum and petroleum products.

On the downside were crude demand, stocks and operating rate of refineries.

In detail:

Production of crude petroleum averaged 6,971,000 barrels per day in September, 31,000 barrels per day over August. Crude production for the first nine months of 1960 was 42,000 barrels per day less than in the same period of last year.

Crude runs to stills in September averaged 8,100,000 barrels per day. In the period January-September this year crude runs averaged 91,000 barrels higher than in the same period last year.

Demand for crude oil in September decreased 145,000 barrels per day. Total crude stocks on Sept. 30 were 231,966,000 barrels, the lowest end-of-month crude stock level since Sept. 30, 1948.

Demand for all oils in September was 9,206,000 barrels per day. Total demand in the first nine months of this year was 2 percent higher, and domestic demand 2.2 percent higher, than in the same period last year.

Capacity of operating refineries in September was 83.5 percent, or 9,705,000 barrels per day, as compared with 85.2 percent in August.

The wholesale price index (1947-49 equals 100) for crude petroleum and petroleum products, according to Bureau of Labor Statistics, was 120.7 for September, 120 for August and 115.1 for September a year ago.

Aromatic Solvents

Toluene—The market displayed signs of further tightening last week according to reports from the trade.

New processes—notably "Hydeal"—are held responsible for the rush to secure adequate toluene supplies.

One toluene supplier revealed last week that he had been offered an even swap—xylene for toluene.

Considering that bulk price for toluene in the Gulf is 18½c. a gallon tops and xylene is 20c a gallon, the proposal is the equivalent of 20c. toluene.

Intended material would be destined for a "Hydeal" producer of benzene, according to the trade source.

Only question remaining to be cleared up in the recent toluene term change to f.o.b., freight equalized, seems to be what locations will serve as equalization points. Cokeoven operators, who supply about 12 percent of the market, have not as yet announced any change in terms although it is expected they will shortly do so.

Xylene—Sources report xylene more plentiful now than earlier this fall. Slackening of demand and buildup of inventory does not seem preparatory to any price change, however.

Ominously, though, mounting car inventory presages a decline in auto production in order to take the pressure off dealers whose latest reported inventory was 1,100,000 units. Solvent sales will follow the production curve.

Slow appliance sales are another area of the market which appears to curb solvent traffic. Traditional appliance buying splurge at the holiday season has not materalized and at this late date there seems little hope of a sales boom.

Metal finishing in general is in for a slack period through the early part of next year at least according to many observers.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Dec. 11, 1959
103.74	103.74	103.74	103.04

For Current Prices See Page 11

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended Nov. 26 totaled 236,783,000 barrels, according to data reported by the Bureau of Mines, compared with the total of 237,036,000 barrels for the preceding week. This represents a decrease of 253,000 barrels, comprising a decrease of 1,151,000 barrels in stock of domestic crude and an increase of 898,000 barrels in stock of foreign crude.

LPG's

Total production of LP-gas hit 343,917,000 gallons in the first two weeks of November, down 40 million gallons from the preceding two-week period. Output in the first two weeks of November last year was 332.6 million gallons.

Inventory of LP-gas on Nov. 15 dropped slightly from totals recorded on Oct. 31 but was substantially higher than stocks on hand on Nov. 15 a year ago.

Recorded stocks on Nov. 15 were 1,159,239,000 gallons, 1,189,998,000 gallons on Oct. 15 and 1,037,625,000 gallons on Nov. 15 last year.

Ethane-ethylene—Output in the period Nov. 1-15 dipped from the preceding two-week period although totaal was higher than in the like period a year ago.

Production for Nov. 1-15 was 20,276,000 gallons as compared with 30,297,000 gallons in the preceding two weeks and 21,860,000 gallons a year ago.

Stocks remained at 913,000 gallons, the same figure held in the previous two weeks, but well below the 4,068,000 gallons recorded a year a go on Nov. 15.

Iso-butane—Output climbed to 30,991,000 gallons during Nov. 1-15 after recording 27,351,000 gallons in the last two weeks of October. Production in the first two weeks of November last year was 28,230,000 gallons.

Waxes

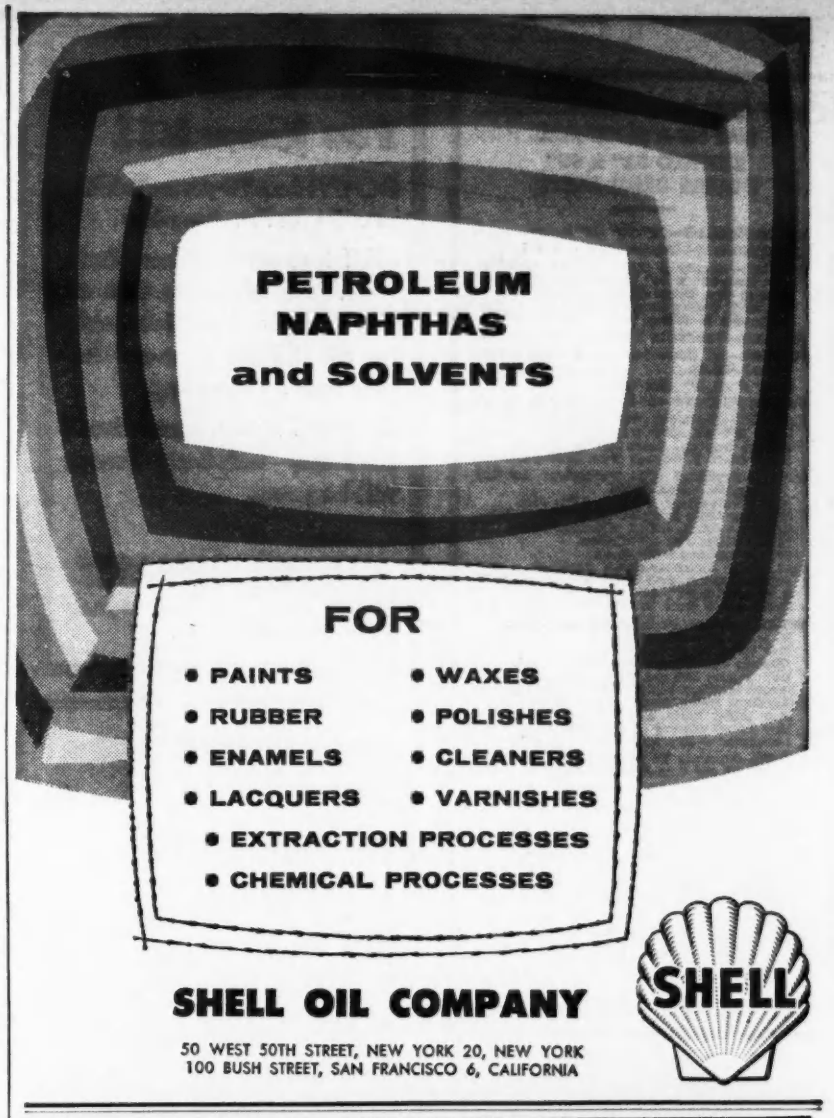
Production of wax in September declined 9½ percent from August volume. Exports and stocks also dropped. Domestic demand increased 6 percent, however. Compared with September of last year, increases were noted in exports, stocks and domestic demand while production and imports declined.

September output dropped to 453,000 barrels (each barrel equals 280 pounds) after August production of 500,000 barrels and total for September of a year ago of 469,000 barrels.

Production for the period January-September this year rose to 4,269,000 barrels as compared with 4,163,000 barrels in the same period last year.

Domestic demand in September jumped to 387,000 barrels as compared with 364,000 barrels in August and 380,000 barrels in September last year.

Total domestic demand for January-September, however, this year is lower at 3,351,000 barrels as against 3,412,000 barrels in the same nine-month period last year.



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Oils and Fats: October

Following statistics are compiled by the Bureau of Census covering oils and fats production, consumption and factory and warehouse stocks in October, 1960 (in millions of pounds).

	Cottonseed Oil	Soybean Oil	Corn Oil	Peanut Oil	Lard	Edible Tallow
Production:						
Crude oils	258.4	390.7	28.0	[1]3.6	[1]192.0	28.2
Refined oils (once-refined)[2]	160.7	271.8	27.6	5.1	xxx	xxx
Consumption in refining[2]	171.6	283.0	30.3	5.4	xxx	xxx
Consumption in selected edible and inedible products, total[3]	109.0	275.3	29.3	5.0	42.6	27.6
Consumption in edible products, total	108.6	257.5	29.1	4.7	41.3	27.1
Stocks, end of month, total[3]	322.6	365.9	37.9	9.0	72.6	24.7
Crude oils	140.4	225.3	20.9	4.9	xxx	xxx
Refined oils	182.2	140.6	17.0	4.1	xxx	xxx

Note: Total consumption of oils in each product may exceed sum of detail since only major edible oils are shown separately.
[1] Source: U. S. Department of Agriculture. Lard production represents quantities rendered.
[2] Production of refined oils covers only once-refined oil. Degummed soybean oil is reported as crude oil.
[3] Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process" (e.g. refined cottonseed includes stocks of stearin).

	Coconut Oil	Linseed Oil	Inedible Tallow & Grease	Tall Oil	Vegetable Foots
Production:					
Crude	45.8	[1]45.0	[2]249.6	64.0	24.6
Refined (once-refined)[3]	36.3	(NA)	xxx	[8]11.6	xxx
Consumed in refining[3]	39.1	20.5	xxx	[8](D)	xxx
Consumption in selected edible and inedible products, total[4]	[5]53.1	31.7	161.5	71.3	10.1
Consumption in inedible products, total	39.3	31.7	161.5	71.3	10.1
Stocks[4]	[9]321.2	80.6	342.5	101.5	35.2
Crude oils	[9]306.8	[6]47.8	xxx	86.7	xxx
Refined oils	[9]14.4	[7]32.8	xxx	14.8	xxx

NA—Not available.
[1] Raw linseed oil only.
[2] Quantities rendered.
[3] Production of refined covers only once-refined oils.
[4] Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process." Stocks of palm, crude castor and sperm oil are on a commercial stocks basis; and do not include stockpile of strategic oils.
[5] Includes following amounts consumed as crude in October and September respectively: 17.0 and 16.4.
[6] Includes raw and boiled linseed oil.
[7] Includes linseed oil other than raw and boiled.
[8] The use of whole or crude tall oil in the distillation or fractionation process is reported as consumed in "Fatty Acids"; the use in the acid refining process is reported as consumed in "Refining." The production of refined tall oil includes the output of acid refined tall oil and distilled tall oil (containing less than 90% free fatty acids not including rosin acids).
[9] Includes General Services Administration stocks which are no longer required for the strategic stockpile. Months prior to April, 1960, stocks were on a commercial basis only.

	Castor Oil	Tung Oil	Palm Oil	Palm Kernel Oil	Fish Oil Incl. Mammal Oil Other Than Sperm	Sperm Oil
Production:						
Crude	...	...	xxx	...	[1]21.6	[1]
Refined (once-refined)[2]	xxx	xxx	xxx	6.3	xxx	xxx
Consumed in refining[2]	xxx	xxx	xxx	7.1	xxx	xxx
Consumption in selected edible and inedible products, total[3]	9.5	3.1	3.6	8.0	4.9	3.4
Consumption in edible products	(D)	...	(D)	5.8	...	...
Consumption in inedible products	(D)	3.1	(D)	2.2	4.9	3.4
Stocks (crude and refined)[3]	23.8	37.3	25.3	15.1	65.8	29.7

D—Withheld to avoid disclosing figures for individual companies.
[1] Source: Fish and Wildlife Service, U. S. Dept. of Interior.
[2] Production of refined, covers once-refined oils.
[3] Includes hydrogenated fats and other fats and oils "in process." Stocks of palm, crude castor and sperm oil are on a commercial basis and do not include stockpile of strategic oils.

Oils, Fats and Waxes

—Continued from page 66

improved reflecting wintry weather across the North. Production was near peak rate. Meal, 44 percent protein was quoted at $48.50 a ton, unrestricted, bulk Decatur, for prompt delivery.

Waxes, Vegetable

Firmer tone prevailed in carnauba grades last week because of tight supply condition of the spot market. Consumers interest was quite active and with supplies scarce, fatty grades were firmer, advancing 1c. per pound. Offers from Brazil continued limited and were firmly held. No. 3 Ceara crude was firmer at 68c. to 70c. per pound, spot, as to quantity and Parnahyba, 71c. to 72c., same basis. Yellows also were steadier but unchanged. No. 1 yellow ranged from 98c. to $1 per pound spot and Parnahyba, $1 to $1.02 per pound, according to quantity. Chalky continued scarce and nominal at 74c. per pound on spot.

Strong tone continued to prevail in crude and refined beeswax, reflecting strength and scarcity of crude replacements. Offers for shipment were scanty, especially of bleachable grades. Refined wax was unchanged but firm and has not been advanced because of keen competition.

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NORTH JERSEY AREA
Type 316 Stainless Steel Equipment

1—2600 gals. type 316 SS vertical vacuum receiver.
2—Rubber lined horiz. storage tanks, 5500 gals., working pressure 45#.
6—Rubber lined vertical storage tanks, 4500 gals., working pressure 45#.
2—Rubber lined vertical storage tanks, 2500 gals., working pressure 45#.
2—Buflovak type 316 SS jacketed rotary vacuum dryers, 5' x 30', complete with 25 HP explosion proof motors and drives.
3—Type 316 SS ter-meer continuous type centrifuges, 4' dia. bowls, complete with motors.
1—Readco stainless steel horiz. blenders, 450 cu. ft. working capacity, complete with 75 HP motors.
3—Mikro Model 3TH stainless steel pulverizers, complete with 40 HP explosion proof motors.
2—Nash SH-6 SS vacuum pumps, complete with 20 HP motors.
2—Aldrich Groff type 316 SS hydraulic triplex pumps, size 2 3/4 x 4 at 500 psi.
2—Powell type 316 SS, 10" hyd. oper. flanged and gate valves.
3—Tyler type 38 tandem SS hummer screens, size 42" x 9'8".
3—Williams type 316 SS hammermills with 10 HP motors.
2—200 gals. type 316 SS jacketed kettles.
4—Patterson-Kelley SS heat exchangers, 235 sq. ft. and 300 sq. ft.
500 tons of type 316 SS pipe, fittings and valves, from 2" to 6".
500 tons of structural steel.

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November 29, 1960

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B&P Ter Meer S30 Centrifuge 316 S.S.
Sharples C-27 Centrifuge 316 S.S.
Eimco 4'x2' Rotary Dewaterer 316 S.S.
S.S. Centrifix Eliminator 42"x12'6".
Swenson 24"x20' jkt. S.S. Crystallizers.
Swenson Evaporator 425 sq. ft. Stainless.
Bubblecap Columns 7'x25'—8 trays; 5'x88'—35 trays; 3'x38'—35 trays.
Baker Perkins 18DIM 300 gal. Mixer.
100 Steel Tanks 1000 to 350,000 gal.
Penna. SX13 Hammermills, 400 HP.
Heil Patterson Crushers, 100 HP.
Koppers 36"x42"—2 Roll Crushers.
Centrif. Blowers 23M; 29M; 50M, CFM.
10,000 ft. Trough Conveyor 30"; 36"; 42".
Stainless Centrif. Pumps 2"x2" to 6"x5".
Patterson Uni-Power Drives 1 to 20 HP.

Stainless Type 316 Tanks

17,500 gal. 15'x16'OA Flat top, cone bot.
11,500 gal. 12'x15'OA cone bot. 15 HP Agit.
10,500 gal. 10'x23'OA dish top, cone bot.
400 to 850 gal. (10), Some Agitated.

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KNEADER MASTER — Paterson 2½ gal. vac., jack., variable speed (Inf.)
HEAT EXCHANGERS S.S., 60 to 2300 sq. ft.
CENTRIFUGE—Tolhurst 40" rubber lined, centerslung, 5 H.P.
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2—Stokes "DDS2" Rotary Tablet Machines, each with 5 h.p. vari-drive.
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Oliver 316 SS Filter 6' dia., 25 sq. ft. cap.
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1—42" Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
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1—Abbe Pebble Mill 5' x 22'.
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1—250 gal. Kettle, nickel jacket, 100#.
1—Bartlett Hog Mill with 7½ H.P. motor.
1—430 S.S. Tank 3000 gal. vert. ¾ plate, with 2 pc. cover.
2—Vacuum Pumps, Gardner-Denver, 5" bore 4" stroke, with 7-½ H.P. motors.
1—#316 S.S. Reactor 265 gal. jkt.
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2—Podbielniak type 316 SS Centrifuges. Mod 6080 & 9000.
2—J. H. Day 40" x 120" Single Deck Screens. 2 HP Motors.
2—Dorrco 60' Double Rake Thickener mech. w/1½ HP Mtrs.
3—Link-Belt Roto-Louvre Dryers 207-10, 310-16 & 705-24. Comp.
1—Struthers Wells 5' x 10' Single Roll Stain. Drum Dryer.
1—Oliver 8' x 10' Rotary Cont. Vac. Precoat Filter. Steel contact.
3—500 gal. Steel jktd. Kettles. 140 PSI. Arranged for agit.

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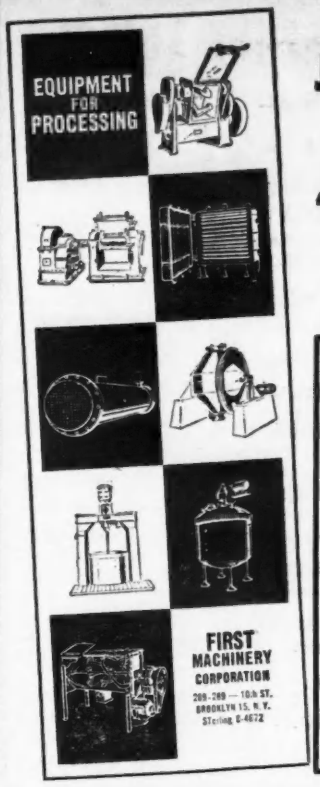

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Tolhurst 40" Suspended Centrifuges; Rubber Covered Perf. Baskets and Curbs; Monel Plow-Discharge; 7½ HP.
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Pfaudler 6' Dia. Stainless Evaporating Dish; Jacketed.
Abbe, Ball & Jewell Rotary Cutters; in a wide range of sizes, capacities.

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2 Stainless 400 gal. Reactors Jktd. Agtd. by Patterson and Struthers Wells.
Stainless Reactor, 2000 gal. Fully Jktd. Agitated.
Nickel Clad Reactor, 7'x11'6".
2 MONEL Reactors; 2800 gal. 6'8"x13'; ASME Jktd. & Intern.
3 Stainless Vert. Pressure Tanks; 42"x10'; closed dished heads.
6 Heavy Duty Stainless Tanks; 850 gal. with S/S Agitators.
Pfaudler Gl. Lined Reactors; all sizes from 50 to 1000 gal.
Mojonnier Stainless Vac. Pans; 3'x10' and 6'x12'; others.

EVAPORATORS — DRYERS

Buflovak S/Steel Thermo-Recompression Evaporator; Sanitary with all accessories.
Buflovak S/Steel Dbl. Effect Evaporator Model 8½-60 D.
Link Belt Roto Louvre Dryer model 502-20 Complete.
Pittsburg Lectro Dryers, Bac 25 and BWC 3400.
Devine Vac. Chamber Dryers, Double Door Model No. 36.
Stainless Lab. Drum Dryer, 8"x11½" Complete.
Bowen S/S Lab. Spray Dryer.
Louisville S/S Rotary Dryer, 30" x 28'; Indirect fired.
Louisville MONEL Rotary Steam Tube; 54" x 35".

CENTRIFUGES

Stainless Centrifugals from 30" to 60"; A.T.&M. Tolhurst, Fletcher, etc.
2 Sharples Stainless Steel Model PN14 Super-D-Canters.
4311 S 1 Sharples C 27 Super-D-Hydrator in Type 316 Stainless with 40 HP Motor.
5147 S 13-14 Two Bird Continuous Screen Type Horizontal Centrifuges; Monel & S.S.; 24" x 24".
2 Bird Rubber Covered, 48" with Plows; Fume Tight; 40 HP.

MILLS—PULVERIZERS

2 Stainless Micronizers 30".
Ball Mills and Pebble Mills by Abbe, Patterson, International some Jacketed; up to 8'x8'.
Mikro Pulverizers up to No. 4's.
Fitzpatrick Comminutators; Models D, K and C; motorized.
American Ring Roll Crusher; 50 HP.
Mikro S/S Atomizers; Nos. 6 and 5.
Raymond Imp Mills; many sizes.
Williams Hammer Mills to 60 HP.

FILTERS — FILTER PRESSES

4 Pressure Filters 30"x56" Type 316 Stainless; 100 sq. ft.
Sparkler S/S Filter Model 14 S 4.
Sparkler Steel Filter Model 33 S 17.

OLIVER PRECOAT FILTERS

3"x2" Monel. 5'3"x8' Stainless.
(2) 5'3"x3" Steel or Rubber.
Feinc S/S Rot. Vac. Filter 3'x1'.
Oliver Cont. Rot. Vacuum Filter.
Panel Type; 8'x8' and 8'x10'.
S/S Nutsche Type Filter; 6'x2'.
Bowser Filter with Pump; 2000 GPH.
Shriver and Sperry Plate & Frame Filter Presses up to 42" in Cast Iron, Stainless, Ni-Resist, Rubber Covered or Wood; all types.

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Baker-Perkins Jktd. 5 gal. UNE-7, Dbl. Arm Mixer with pressure cover; 30 HP.
Readco Jktd. 15 gal. Dbl. Arm Sigma Blade Mixer.
Stainless Steel 150 gal. Jktd. Dbl. Arm Mixer with Vac. Cover; Hydr. Tilt;
Other Baker Perkins Jktd. Mixers, 200 and 300 gal.
J. H. Day Cincinnatus Dbl. Arm Mixer; 300 gal. STAINLESS Jacketed.
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Dunning & Boschert Hydraulic Presses, 169 Ton; 33" x 26"; 12" Stroke; 48" Daylt.
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1—1900 GAL. T316 SS JKT. REACTOR, 5 HP AGIT., VACUUM.
5—1350 GAL. T347 SS JKT. KETTLES, ANCHOR AGIT.
1—1000 gal. Dopp cast iron kettle, jkt., 25 HP agit.
1—750 gal. T304 SS jkt. fermenter, ASME, 10 HP agit.
1—600 gal. T304 SS jkt. crystallizing kettle, agit.
2—500 gal. Pfaudler glass-lined jkt. reactors, agit.
6—465 gal. T304L SS jkt. reactors, 175# WP.
2—125 gal. T316 SS jkt. fermenters.
2—100 GAL. T304 SS JKT. REACTORS, ASME, VAC., UNUSED.

STAINLESS STEEL TANKS

1—5700 gal. horiz., T304 SS, 6'4" x 24', UNUSED.
2—4500 gal. vert., T304 SS, 8' x 12', UNUSED.
1—4300 GAL. HORIZ. T304 SS, 6' x 20', DISHED HEADS, 50# WP.
1—3700 gal. vert., T304 SS, 6' x 17', VACUUM.
1—3300 gal. vert., T304 SS, 6' x 14', dished heads.
1—3000 gal. vert., T304 SS, 6' x 15', coils, Vac.
3—2750 GAL. VERT., T304 SS, 7' x 8', DISHED HEADS, COILS.
1—2500 gal. vert., T316 SS, 7' x 7', dished heads, agit.
2—2300 gal. vert., T316 SS, 7' x 8', coils, agit.
4—2250 GAL. VERT., T316 SS, 7' x 6'3", DISHED HEADS.
1—2100 gal. vert., T316 SS, 6' x 9'10", cone bottom.
12—1750 gal. vert., T304 SS hoppers, 235 cu. ft.
1—1600 gal horiz., T304 SS, 5' x 11', dished heads.
1—1250 gal. vert., T304 SS, 5' x 12', coils, vac.
2—1000 GAL. VERT., T304 SS, 5'5" x 6'2", UNUSED.
1—600 gal. vert., T304 SS, 5' x 4', dished heads.
6—685 gal. vert., T316 SS, 3' x 13', coils.

SELECTED RECENT PURCHASES

1—60" DIA. X 35 PLATE T316 SS BUBBLE-CAP COLUMN.
2—DAVENPORT 8' X 60' ROTARY DRYERS, 7/16" WELDED, COMPLETE.
1—BUFLOVAK 6" X 8" LABORATORY DBL. DRUM DRYER—VACUUM.
1—LOUISVILLE 4'6" X 25' ROT. STEAM-TUBE DRYER.
2—MIKRO #3TH PULVERIZERS, STIRRUP HAMMERS.
1—J. H. DAY #8 CINC., 150 GAL. SIGMA MIXER.
1—AMERICAN 42" X 120" DBL. DRUM DRYER, STAINLESS TRIM.
2—BUFLOVAK VACUUM SHELF DRYERS: 110, 98 SQ. FT.
3—KOMAREK-GREAVES 160,000 PSI BRIQUETTE PRESSES.
1—BOWEN LAB. SPRAY DRYER, T304 SS, CONE BOTTOM, GAS.

EVAPORATORS

1—MOJONNIER 2085 SQ. FT. TRIPLE EFFECT, T304 SS, WITH PREHEATERS.
1—BUFLOVAK 1025 SQ. FT. DBL. EFFECT, T304 SS, SIZE #8-50-D.
1—Buflovak 840 sq. ft. dbl. effect, T304 SS, size #7.5-42-D.
1—Buflovak 710 sq. ft., dbl. effect, T304 SS, size #7-35-D.
1—Buflovak 700 sq. ft. single effect, T304 SS, forced circ.
1—STRUTHERS-WELLS 630 SQ. FT. SINGLE EFFECT, T316 SS, CALANDRIA TYPE.
1—Buflovak 588 sq. ft. dbl. effect, T304 SS, size #6.5-29-D.
1—F. J. Stokes 118 sq. ft. single effect, T316 SS, U-tube still.
2—Rogers 6' dia. vacuum pans, T304 SS, int. coils.

HEAT EXCHANGERS — CONDENSERS

1—1960 SQ. FT. T316 SS, HORIZ. EXCHANGER, ASME 75# WP.
1—1450 sq. ft. T316 SS vert. condenser, remov. bundle.
3—800 SQ. FT. T316 SS VERT. CONDENSERS, ⅝" OD TUBES.
1—800 sq. ft. T316 SS vert. condenser, 1" OD tubes.
1—730 sq. ft. T316 SS horiz. exchanger, remov. bundle.
1—510 SQ. FT. T316 VERT. COND., REMOV. BUNDLE.
4—T316 SS exchangers-condensers: 427, 425, 410, 400 sq. ft.
10—T316 SS exchangers: 290, 277, 264, 250, 200, 185, 165, 150, 145, 105 sq. ft.
8—T316 SS exchangers, 83, 73, 54, 52, 50, 47, 30 sq. ft.
10—Enzinger 185 sq. ft. T304 SS contin.-flow exchangers.

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5—BUFLOVAK 42" x 120" DOUBLE DRUM DRYERS, ASME 160# WP.
2—BONNET 7' x 60' ROTARY HOT-AIR DRYERS, ⅜" SHELL, COMPLETE.
1—BONNET 6' x 52' ROTARY HOT-AIR DRYER, 5/16" SHELL, COMPLETE.
2—SWEETLAND #12, (24) 36" DIA. LEAVES, 336 SQ. FT.
6—SHRIVER 48" CAST IRON P. & F. FILTER PRESSES, 50 CHAMBERS.
7—DAVENPORT DEWATERING PRESSES: #1A, 2A.
2—FRENCH OIL TYPE 2-S SCREW TYPE EXTRACTION PRESSES, 60 HP.
2—QUADRUPLE EFFECT EVAPORATORS, CALANDRIA TYPE, 4050 SQ. FT., CAST IRON BODIES & COPPER TUBES. WITH 1230 SQ. FT. HORIZ. COPPER PREHEATERS & 2450 SQ. FT. PANS. TOTAL 19,900 SQ. FT.
6—ANSONIA 691 SQ. FT. HORIZ. DBL. PIPE COOLERS, COPPER TUBES.
3—AMERICAN 654 SQ. FT. SPIRAL STEEL HEAT EXCHANGERS.
18—TUBULAR HEAT EXCHANGERS, COPPER TUBES, 1500, 1350, 1130, 637, 380, 290, 184, 176, 156 SQ. FT.
1—ACME 96" DIA. X 44' HIGH COPPER BEER STILL COLUMN, (20) PERFORATED & (4) BUBBLE CAP TRAYS.
5—LEADER 96" DIA. STEEL RECTIFYING COLUMNS, 44' X 51' HIGH.
2—9500 GAL. HORIZ. STEEL COOKERS, ½" SHELL & DISHED HEADS.

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CENTRIFUGES

2—Sharples C-20 and C-27 Super-D-Hydrator, 316 S.S.
1—Bird 18"x28", Solid Bowl, Continuous, 304 S.S.
1—Bird 32" x 50", Solid Bowl, Continuous, 316 S.S.
1—Bird 36" x 50" solid bowl continuous, 347 SS.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
1—Tolhurst 26" susp. Rubber Imperforate Basket.
2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

1—Glascote 500 gal. glass lined jacketed agitated Reactor.
1—150 gal. 304 S.S. jacketed agitated Reactor.
3—Pfaudler 200 gal. glass lined jacketed Kettles.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—Pfaudler 12" wiped film Evaporator.
1—700 sq. ft. Buflovak 304 SS forced circulation Evaporator.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—7500 gal. 316 S.S. Vert. Storage Tank, 7'x25', 50 psi.
1—500 gal. S.S. Mixing Tank with nickel coils.
1—2,000 gal. horizontal 304 S.S. tank 5' x 12'.
4—1,000 gal. 304 SS Tanks 5'6" x 6'.
1—2,500 gal. vertical 304 SS Tank, 8' x 7'.
6—7500, 6000 and 2000 gal. Rubber Lined Tanks.
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
6—Stainless Heat Exchangers; 1220, 786, 536, 370, 315, 250 sq. ft.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—#5 Sweetland Filter 304 S.S. 120 sq. ft.
1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 5' x 6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Hercules 400 sq. ft. 304 SS pressure Filter.
1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.
1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.
4—36" x 36" alum. P & F, 65 Chambers, 1-1/2 cake, hyd. clos.

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1—Buflovak Vacuum Shelf with 20—60"x80" shelves.
1—Devine Vacuum Shelf with 10—40"x43" shelves.
2—Buflovak 42"x120", atmospheric double drum Dryers, complete.
1—Buflovak 32" x 90" Atmos. Twin Drum Dryer.
2—Devine 4'x9', single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
2—Buflovak 5' x 30', 3' x 7'6" Rotary Vacuum Dryers 316 S.S.
2—Louisville Rotary Steam Tube 5'x25', 6'x35' 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
1—Traylor 30"x18' Stainless Steel Rotary Dryer.
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
1—P&S 10' wide Apron Conveyor Dryer 48' long.

MIXERS

1—Farrel-Birmingham "Midget" Banbury Mixer.
2—Day Imperial 150 gal. jktd. double arm.
1—Baker Perkins 100 gal., jacketed, double arm, 30 HP.
1—Baker Perkins 50 gal. jacketed, double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—3' dia. Simpson Intensive Mixer.
1—Patterson Kelly 150 cu. ft. Twin Shell Blender.

MISCELLANEOUS

1—Farrel Birmingham, 8" x 16", 2 Roll Chrome Plated Mill.
2—Hardinge 5' x 22" steel lined conical Ball Mills.
4—Mikro Pulverizers, #4TH, 1SH, 1SI and Bantam.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10" vert Mill, 10 HP.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
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1—#24 Rotex Sifter, 20" x 64", Quadruple deck.
5—Day Roball Sifters 40" x 120", 40" x 84", double deck.
1—#81 Day Roball Sifter 40" x 120" single deck.
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4—Stokes Rotary Tablet Machines DD2, DDS2, DS3, RB2.

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1—Mikro #1SH SS pulverizer complete with motor.

2—Struthers Wells type 316 SS 2000 gal. jacketed reactors complete with agitators and drives.

2—Pfaudler type 316 SS jacketed kettles, 100 and 200 gal.

5—Pfaudler glass lined jacketed reactors 30 to 100 gal. complete with agitators and drives.

2—Pfaudler glass lined vacuum receivers, 20 and 30 gal.

1—Patterson SS 10 gal. jacketed autoclave complete with agitator and drive, 600 psi internal, 175 psi jacket.

1—Patterson 40 gal. SS reactor, 50# internal, 50# jacket.

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'ersey SS rotary dryer, 3'x21'.

2—Stokes single door vacuum shelf dryers with 6 shelves, 24" x 36".

1—Raymond 2 roll high side roller mill complete with oil journals.

1—Buflovak SS jacketed rotary vacuum dryer, 3' x 15'.

1—American 42" x 120" double drum dryer with drive and motor, complete.

1—Buflovak 24" x 36" double drum dryer, complete.

1—Proctor & Schwartz SS apron dryer, 2' x 20'.

1—Patterson Kelley steel twin shell blender, 150 cu. ft., complete with drive and motor.

10—Robinson SS double ribbon horizontal blenders, 125 cu. ft.

5—Robinson SS double ribbon horizontal blenders, 255 cu. ft.

1—Gemco double cone conical blender, 40 cu. ft.

2—Sturtevant SS #7 Dustite rotary batch blenders, NEW.

1—Baker Perkins Size 16 UUEM jacketed mixer, double arm dispersion type, complete with compression cover and 100 HP motor, 150 gal. capacity.

1—Baker Perkins Size 15, 100 gal. SS jacketed double arm sigma blade mixer.

2—Bonnet rotary kilns, 8' x 115', complete with motors and drives.

2—Louisville SS rotary dryers, 8' x 50'.

1—Allis Chalmers SS rotary dryer, 6' x 50'.

1—Stokes steel jacketed rotary vacuum dryers, 5' x 30'.

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7—Western States 40" type 316 SS suspended type centrifuges, complete with perforate baskets, plows and 40 HP motors.

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FDA's Problems

—Continued from page 5

best scientific judgment can not arrive at a firm evaluation.

"As to products about which you are uncertain," he said, "write to the Food & Drug Administration, giving the full quantitative composition, a copy of the proposed label and any relevant information, such as toxicity data, flash-point, etc., available to you, a description of the intended uses, and the reasons why you believe the articles are or are not subject to the law."

In another speech before CSMA, D. George Fiero, outgoing president, congratulated the group on its contribution to the adoption of new legislation and administration procedures during the year.

Citing the enactment of the federal hazardous substances act, he noted that the association and its precautionary labeling committee had worked with those supporting such legislation for a number of years.

Charles E. Beach, of John C. Stalfort & Sons, Inc., was elected 1961 president of the group at its opening session, December 5 (See picture story on page 7).

Other officers elected were:

Charles E. Allerdice, jr., Bell Company, Chicago, first vice-president; Donald J. Templeton, Stanley Home Products, Inc., Lasthampton, Mass., second vice-president; Frederick G. Lodes, Lodes Aerosol Consultants, Inc., New York, treasurer, and Alfred A. Mulliken, secretary.

Elected to the board of governors for three-year terms were: Mr. Fiero, Esso Standard Division of Humble Oil & Refining Company, New York; John A. Rodda, Fairfield Chemical Division of Food Machinery & Chemical Corporation, New York, and Joseph J. Tomlinson, general chemical division of Allied Chemical Corporation, New York.

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120 bgs, Casablanca
ALUMINUM BROMIDE—3 cs, Fisher Scientific Co, Bremen
ALUMINUM POWDER—50 dms, Bremen
ALUMINUM SULFATE—662 bgs, Philipp Bros Chemicals, Bremen
AMINOPHYLLINE—10 cks, Havre
AMYRIS OIL—1 dm, Polarome Manufacturing Co, Cap Haitien
2 dms, Port Au Prince
ANGOSTURA BARK—38 bgs, J M Rodriguez, Puerto Ordaz
ANILINE DYES—36 dms, H Bruckmann & Lorbacher, Hamburg
93 dms, H Bruckmann & Lorbacher, Bremen
34 dms, Heemsoth Kerner, Liverpool
14 dms, Geigy Chemical Corp, Bremerhaven
24 dms, Sandoz Inc, Havre
24 dms, Rotterdam
ANNATTO SEED—300 bgs, S American Minerals & Merchandise Corp, Cabedello
176 bgs, Foreign Domestic Distributors, Callao
ANTHRAQUINONE—8 dms, Francolor Inc, Havre
ANTIMONY—121 cs, Havre
420 cks, Liverpool
ARABIC GUM—504 bgs, H Heide, Port Sudan
260 bgs, Colony Import & Export Corp, Port Sudan
258 bgs, Lo Curto & Funk, Port Sudan
804 bgs, Morningstar Paisley Inc, Port Sudan
827 bgs, Meer Corp, Port Sudan
100 bgs, Port Sudan
ARROWROOT FLOUR—441 bgs, Morningstar Paisley Inc, Itajai
ARSENIC, WHITE—132 bbls, American Smelting & Refining Co, Tampico
ASBESTOS FIBER—4,600 bgs, Johns Manville Corp, Durban
1,720 bgs, Johns Manville Corp, Lourenco Marques
11,300 bgs, N American Asbestos Co, Lourenco Marques
ASCORBIC ACID—24 dms, Byron Chemical Co, Kobe
BARBASCO ROOT—245 bgs, Callao
BAUXITE RESIDUE—200 bgs, Frank D Davis Co, Avonmouth
BEESWAX—84 bgs, Marine Midland Trust Co, Porto Alegre
126 bgs, S Zeitlins Sons, Paranagua
40 bgs, Kane Import Corp, Cristobal
62 bgs, E Vadillo Ruiz, Curacao
33 bgs, H H Pike & Co, Curacao
37 bgs, Baldini & Co, Tampico
50 bgs, H H Pike & Co, Puerto Plata
203 blks, Lisbon
50 blks, Lobito
72 bgs, Tampico
BERGAMOT OIL—120 hf cs, Messina
BOIS DE ROSE OIL—10 dms, Polarome Manufacturing Co, Antwerp
BONE BLACK—110 bgs, Transatlantic Animal By Products Corp, Alexandria
BRONZE POWDER—118 dms, Bremen
CALCIUM CARBONATE—400 bgs, N H Weltzner, Antwerp
2,520 bgs, Pluess Staufer, Antwerp
CALCIUM CARBONATE, PRECIPITATED — 800 bgs, H J Baker & Bro, Liverpool
CALCIUM LACTATE—40 kgs, Copenhagen
CAMPHOR, SYNTHETIC—224 cs, P H Petry, London
CANDELILLA WAX—188 bgs, Smith & Nichols, Tampico
626 bgs, Tampico
CARAWAY SEED—150 bls, P H Petry, Rotterdam
150 bgs, Levy & Levis Co, Rotterdam
200 bgs, R J Spitz, Rotterdam
125 bgs, P Olender, Rotterdam
100 bgs, J Bieler, Rotterdam
100 bgs, Frank Tea & Spice Co, Rotterdam
300 bgs, Louis Furth, Gdynia
100 bgs, Rotterdam
CARBON TETRACHLORIDE—150 tons, Atlantic Raw Materials, Antwerp
CARNAUBA WAX—56 bgs, M Argueso & Co, Fortaleza
22 bgs, Dominion Bank, Fortaleza
278 bgs, F Henjes, Fortaleza
279 bgs, Frank B Ross, Fortaleza
150 bgs, S C Johnson & Son, Fortaleza
551 bgs, Chase Manhattan Bank, Tutoia
63 bgs, Irving Trust Co, Tutoia
63 bgs, Bank of N Y, Tutoia
38 bgs, Chemical Bank, Tutoia
263 bgs, Bank of London & S A, Tutoia
289 bgs, Tutoia
CASEIN—1,500 bgs, P A Dunkel, Buenos Aires
200 bgs, F H Paul & Stein Bros, Buenos Aires
1,000 bgs, Tupman Thurlow, Buenos Aires
300 bgs, F C Gerlach, Buenos Aires
1,300 bgs, L White & Co, Buenos Aires
215 bgs, F H Paul & Stein Bros, Aalesund
125 bgs, First Spice Co, Rotterdam
275 bgs, Trugman Nash Inc, Melbourne
1,000 bgs, J R Spellacy, Melbourne
600 bgs, National Casein Sales, Melbourne
2,500 bgs, Crawford Kish & Co, Gdynia
393 bgs, Ponta Delgada
CASSIA—1,012 bls, Rotterdam
CASTOR OIL—500 tons, Woodward & Dickerson, Salvador
200 tons, Irving Trust Co, Fortaleza
250 tons, Baker Castor Oil Co, Recife
246 tons, Recife
CELERY SEED—60 bgs, Levy & Levis Co, Marseille
CHESTNUT EXTRACT—700 bgs, Bordeaux
CINNAMON BARK—79 bgs, Mombasa
CINNAMON CHIPS—97 bgs, Kellys America Ltd, Antwerp
CITRONELLA OIL—25 dms, Givaudan Corp, Keelung
CLAY, BALL—1,350 bgs, United Claymines Corp, Avonmouth
CLAY, CHINA—1,066 bgs, Anglo American Clays Corp, Avonmouth
CLOVE—100 bgs, L A Champon & Co, Mombasa
400 bgs, K H Landes & Co, Tamatave
300 bgs, M J Golombeck, Tamatave
100 bgs, Kellys America Ltd, Tamatave
350 bgs, L A Champon & Co, Tamatave
50 bgs, Curacao Trading Co, Tamatave
200 bgs, Tamatave
100 bgs, Zanzibar
CLOVE OIL—14 dms, George Uhe Co, Tamatave
15 dms, Ludwig Mueller, Tamatave
34 dms, Zanzibar
23 dms, Ungerer & Co, Tamatave
14 dms, George Lueders & Co, Tamatave
10 dms, Fritzsche Bros, Tamatave
COBALT OXIDE—140 cks, Antwerp
COCONUT OIL—112 tons, Fallek Products Co, Rotterdam
1,000 tons, American Trust Co, Cebu
800 tons, American Trust Co, Zamboanga
1,128 tons, Manila
CODLIVER OIL—20 dms, Arista Oil Products Corp, Aalesund
COLORS, DRY—600 bgs, Naftone Inc, Bremen
25 dms, Gothenburg
146 dms, Hamburg
COLORS IN OIL—463 cs, Transatlantic Pigment Corp, Hamburg
COPAIBA BALSAM—3 dms, Sterling National Bank, Manaus
COPAL GUM—920 bgs, Archer Daniels Midland Co, Matadi
COPPER CYANIDE—50 dms, Chemical Manufacturing Co, Liverpool
CORIANDER SEED—200 bgs, W F Mahneke, Casablanca
75 bgs, Chemical Bank, Istanbul
375 bgs, Louis Furth, Gdynia
CORN OIL—200 tons, Rotterdam
CORN STARCH—1,000 bgs, Geismar & Co, Bremen
1,420 bgs, Rotterdam
1,980 bgs, Antwerp
1,120 bgs, Capetown
CREAM OF TARTAR—200 bgs, Nylos Trading Co, Genoa
CROTONIC ACID—22 dms, Wedeman & Godknecht, Hamburg
CUTTLE FISH BONE—138 cs, Morgan Guaranty Trust Co, Kobe
DEGRAS—93 dms, Malmstrom Chemical Corp, Nagoya
100 dms, Hummel Lanolin Corp, Rotterdam
5 dms, James E Fox, Genoa
26 dms, Crystal Extract & Chemical Co, Port Adelaide
DEXTRIN—842 bgs, Stein Hall & Co, Rotterdam
466 bgs, Morningstar Paisley Inc, Rotterdam
500 bgs, Morgan Guaranty Trust Co, Rotterdam
50 bgs, Oskar Eisman, Itajai
400 bgs, Manufacturers Trust Co, Rotterdam
215 bgs, Rotterdam
m-DIMETHYLUREA—68 dms, Philipp Bros Chemicals, Bremen
DINA ACID—16 dms, H Bruckmann & Lorbacher, Bremen
EARTH COLORS—900 bgs, Naftone Inc, Rotterdam
EUCALYPTUS OIL—6 dms, Colgate Palmolive Co, Santos
FIRNEEDLE OIL—17 dms, Flore Essential Oils Co, Gdynia
FORMIC ACID—2 dms, Henley & Co, Bremen
GALL—1 dm, Wilson Lab, Callao
6 dms, Alverez Terner Corp, Vera Cruz
GELATIN—126 bbls, Colgnet Chemical Co, Antwerp
600 bgs, T M Duche & Son, Antwerp
300 bgs, King Shipping Co, Hamburg
200 bgs, B Young & Co, London
100 dms, Franco Belgian Corp, London
60 cs, T M Duche & Son, Copenhagen
12 dms, D H Burdett, Liverpool
100 bgs, H Bruckmann & Lorbacher, Rotterdam
300 cks, Havre
GERANIUM OIL—8 dms, National City Bank, Tamatave
1 dm, Ufinindo Corp, Tamatave
5 dms, A Chiris, Algiers
GLANDS—5 bbls, Van Gelder Panto Corp, Buenos Aires
GLANDS, PANCREAS—120 bgs, Port Adelaide
GLANDS, PITUITARY, ANTERIOR LOBE—4 cs, Van Gelder Fanto Corp, Hamburg
GLAND CONCENTRATE—3 dms, Wilson Lab, Buenaventura
GLUE—62 bgs, F H Cone, Bremen
336 bgs, Jung Forwarding Co, Avonmouth
GLUE, FISH—60 dms, Harry Dixon & Sons, Kristiansund
GLYCERINE—97 tons, Pasternak Baum & Co, Buenos Aires
GLYCERYL GUIACOL ETHER—4 dms, Hamburg
GLYCOL MONOSALICYLATE—50 cs, Havre
GRAPHITE—750 bgs, C Pettinos, Tamatave
550 bgs, Asbury Graphite Mills, Tamatave
750 bgs, Eagle Pencil Co, Bremen
GUAR GUM—225 bgs, Wedeman & Godknecht, Genoa
11 bgs, P A Dunkel, Genoa
GYPSUM, CRUDE—9,911 tons, U S Gypsum Co, Little Narrows
2,580 tons, National Gypsum Co, Walton
HELIOTROPINE—9 cks, Hollander Trading Corp, Marseille
HEXACHLOROETHANE—270 bgs, Chemical Manufacturing Co, Liverpool
HORNMEAL—1,111 bgs, Transatlantic Animal By-Products Corp, Gdynia
HYDROXYCITRONELLAL—1 ck, Biddle Sawyer Corp, Marseille
INDIGO—192 dms, Putnam Chemical Corp, Rotterdam
INVERTASE CONCENTRATE—20 cs, White Stokes Co, Liverpool
IODINE, CRUDE—96 kgs, Mitsubishi Corp, Yokohama
IRON BLUE—35 dms, Van Oppen & Co, Liverpool
IRON OXIDE—100 bgs, Hudson Shipping Co, Oslo
JAPAN WAX—25 cs, Strohmeyer & Arpe, Kobe
KARAYA GUM—264 bgs, Morningstar Paisley Inc, Bombay
248 bgs, Stein Hall & Co, Bombay
66 bgs, P A Dunkel, Bombay
37 bgs, Chase Manhattan Bank, Bombay
KOLA NUTS—160 bgs, Apapa
LACTIC ACID—32 djns, E F Drew & Co, Hamburg
LAUREL LEAVES—259 bls, M J Golombeck, Izmir
LEAD NITRATE—100 bbls, Antwerp
LEMON OIL—20 cs, National City Bank, Messina
5 dms, Ungerer & Co, Vera Cruz
LICORICE EXTRACT—1,750 cs, Wm E Martin & Son, Izmir
LOCUST BEANS—100 bgs, Meer Corp, Larnaca
200 bgs, M J Golombeck, Larnaca
100 bgs, S B Penick & Co, Larnaca
LOCUST BEAN GUM—100 bgs, Chase Manhattan Bank, Rotterdam
100 dms, Chase Manhattan Bank, Rotterdam
40 bbls, Oxypnen Products Co, Genoa
660 bgs, J L Quesada, Portimao
LOGWOOD EXTRACT—46 dms, American Dyewood Co, Kingston
LITHARGE—368 dms, Eagle Picher Co, Tampico
LIVER POWDER—37 dms, Van Gelder Fanto Corp, Buenos Aires
MARINE OIL COMPOUND—400 bgs, Silvey Shipping Co, Oslo
MARJORAM LEAVES—100 bls, Louis Furth, Marseille
MENTHOL—75 cs, Lo Curto & Funk, Santos
65 cs, American Far Eastern Syndicate, Santos
20 cs, Prentiss Drug & Chemical Co, Kobe
50 cs, Norda Essential Oil & Chemical Co, Santos
33 cks, Chase Manhattan Bank, Marseille
50 cs, Magnus Mabee & Reynard, Keelung
20 cs, Keelung
MERCURY—1,655 flks, Cadiz
34 flks, Vera Cruz
MINERAL COLORS—93 bgs, Revelli Chemicals, Hamburg
MINERAL LUBRICATING OIL—6 dms, Oronite Chemical Co, Hamburg
MOLASSES—1,032 tons, Pacific Molasses Co, Salaverry
MONOCHLOROACETIC ACID—154 dms, Bremen
MONTAN WAX—50 bgs, G S Ziegler & Co, Rotterdam
MUSTARD SEED—1,000 bgs, Plochman & Harrison, Copenhagen
300 bgs, P H Petry, Copenhagen
300 bgs, Catz American Co, Copenhagen
1,000 bgs, D Young, Copenhagen
4,565 bgs, H T French, Copenhagen
800 bgs, J P Anderson & Sons, Copenhagen
NAPHTHALENE—1,470 bgs, Antwerp
500 bgs, Rotterdam
NUTMEG—72 bgs, National City Bank, Rotterdam
125 bgs, Lo Curto & Funk, Rotterdam
140 bgs, Incotra Co, Singapore
150 bgs, P H Petry, Hamburg
154 bgs, Singapore
50 bgs, Rotterdam
OCOTEA CYMBARUM OIL—23 dms, American Metagraph Co, Itajai
OIL ACID—24 tons, M Michel & Co, Rotterdam
OLIBANUM GUM—100 bgs, Grace National Bank, Aden
OLIVE OIL—50 dms, Manufacturers Trust Co Seville
50 dms, A N Cory, Seville
50 dms, Castello Packing Co, Seville
25 dms, Seville
ORANGE OIL—2 dms, Citrus & Allied Essential Oils Co, Puerto Plata
ORANGE PEEL—172 bgs, S B Penick & Co, Cap Haitien
OREGANO LEAVES—126 bgs, H Marmorek & Son, Tampico
PALM OIL—314 tons, E F Drew & Co, Matadi
326 tons, Balfour Guthrie, Matadi
PALMKERNEL OIL—200 tons, Procter & Gamble Co, Matadi
298 tons, Capital City Products Co, Matadi
10 cs, B M T Commodity Corp, Rotterdam
PAPAIN—55 tins, Salentine & Co, Mombasa
30 cs, J E Siebel Sons Co, Dar es Salaam
145 cs, Mombasa
PAPRIKA—80 bgs, Wm E Martin & Son, Alicante
50 bgs, J H Elton, Alicante
100 bgs, Gallagher & Ascher, Alicante
650 bgs, A A Sayia, Alicante
100 bgs, J Raphael & Sons, Alicante
100 bgs, E G Svinkhart, Alicante
400 bgs, J Weinstein, Alicante
200 bgs, Meer Corp, Hamburg
525 bgs, M J Golombeck, Hamburg
223 bgs, J Raphael & Son, Hamburg
100 bgs, Gel Spice Co, Hamburg
350 bgs, National City Bank, Hamburg
PAPRIKA EXTRACT—6 dms, Lo Curto & Funk, Alicante
16 dms, J Weinstein, Alicante
PARSLEY SEED—60 bgs, Meer Corp, Hamburg
100 bgs, S B Penick & Co, Hamburg
PATCHOULI OIL—5 dms, Felton Chemical Co, Penang
82 dms, International Flavors & Fragrances Inc, Penang
1 dm, Alpine Aromatics Inc, Singapore
PEPPER, BLACK—80 bgs, George Uhe Co, Singapore
140 bgs, J H Elton, Singapore
PEPPER, RED—128 bgs, Kellys America Ltd, London
196 bgs, M J Golombeck, Iskenderun
100 bgs, Kobe
PIMENTO LEAF OIL—5 dms, Fritzsche Bros, Kingston
POLLACKLIVER OIL, CONCENTRATE—1 dm, Arista Oil Products Corp, Yokohama
POLYVINYL ALCOHOL—263 bgs, Kobe
POPPYSEED—150 bls, P H Petry, Rotterdam
200 bgs, Wagner Bros, Izmir
400 bgs, R J Spitz, Izmir
200 bgs, Chase Manhattan Bank, Izmir
200 bgs, Louis Furth, Gdynia
250 bgs, R J Spitz, Gdynia
100 bgs, Globe Products Co, Gdynia
400 bgs, Neiman Bros, Gdynia
75 bgs, P Olender, Rotterdam
400 bgs, Rotterdam
POTASH, CAUSTIC—552 bgs, Rotterdam
POTASSIUM CHLORATE—100 dms, Hamburg
POTASSIUM CYANIDE—110 dms, Canadian Bergom Co, Hamburg
100 dms, Chemical Manufacturing Co, Liverpool
POTASSIUM FERRICYANIDE—32 dms, Antwerp
POTASSIUM FERROCYANIDE—33 bgs, Filo Color & Chemical Corp, Rotterdam
500 bgs, Haras Co, Rotterdam
POTASSIUM PERCHLORATE—200 dms, Orlex Dyes & Chemical Corp, Gothenburg
POTATO STARCH—1,000 bgs, Copenhagen
PYRETHRUM EXTRACT—20 dms, Prentiss Drug & Chemical Co, Mombasa
160 dms, Mombasa
PYRETHRUM FLOWERS—50 bls, Prentiss Drug & Chemical Co, Puna
110 bls, P H Petry, Puna
PYRITES—242 cks, American Metal Climax, Leixoes
QUEBRACHO EXTRACT—523 bgs, Tae Tannins & Chemicals Inc, Buenos Aires
536 bgs, First National Chicago, Buenos Aires
QUININE SULFATE—20 dms, Lo Curto & Funk, Hamburg
QUININE SULFATE—6 dms, Lo Curto & Funk, Hamburg
RAPE SEED—330 bgs, S Davis, Rotterdam
440 bgs, Hartz Mountain Products, Rotterdam
RESIN, UREA FORMALDEHYDE—2 dms, Jasper Wood Products, Rotterdam
RHATANY ROOT—41 bgs, Callao
RICE EXTRACTION MEAL—133 bgs, Oskar Eismann, Trieste
RICE STARCH—70 bgs, Alpha Chemical Products Co, Trieste
200 bgs, American Key Products, Trieste
SAGE LEAVES—400 bls, K H Werthon, Trieste
285 bls, F N S Corp, Trieste
71 bls, Leghorn
18 bgs, Trieste
SARSAPARILLA ROOT—7 bls, F D Keller & Son, Tampico
SEEDLAC—250 bgs, Capitol Shellac Corp, Bangkok
250 bgs, Gillespie Rogers Pyatt, Bangkok
250 bgs, Colony Import & Export Corp, Bangkok
750 bgs, Wah Chang Corp, Bangkok
SESAME OIL—700 dms, Pacific Vegetable Oil Corp, Nagoya
50 dms, Teyseenka Inc, N Y, Nagoya
100 dms, Copenhagen
SESAME SEED, HULLED—990 bgs, Alexandria
SHELLAC—40 bbls, F H Paul & Stein Bros, Rotterdam
44 bgs, F H Paul & Stein Bros, Hamburg
40 bbls, F H Paul & Stein Bros, Bremen
60 bgs, F H Paul & Stein Bros, Bremen
SHELLAC WAX—40 bgs, F H Paul & Stein Bros, Bremen
20 bgs, Mantrose Corp, Bremen
SIENNA, BURNT—89 bgs, T H Deutz, Leghorn
400 bgs, Reichard Coulston, Leghorn
SODIUM ALUMINATE—250 bgs, Chemical Manufacturing Co, Liverpool
SODIUM BOROHYDRIDE—9 cks, Callery Chemical Co, Hamburg
10 dms, Metal Hydrides Inc, Hamburg
SODIUM CYANIDE—600 dms, Chemical Manufacturing Co, Liverpool
SODIUM ISOPROPYL XANTHATE—120 dms, Inchemtex Inc, Antwerp
SODIUM PERBORATE TETRAHYDRATE—1,993 bgs, Chemical Manufacturing Co, Liverpool
SODIUM SILICOFLUORIDE—300 bgs, Riches Nelson, Rotterdam
SPERM OIL—449 tons, Arista Oil Products Corp, Glasgow
STARCH—1,200 bgs, Morningstar Paisley Inc, Rotterdam
STRYCHNINE SULFATE—1 cs, Frank Samuel & Co, Southampton
SULFAMIC ACID—295 bgs, Bordeaux
TANNIC ACID—20 dms, Havre
TAPIOCA—551 bgs, Stein Hall & Co, Itajai
771 bgs, Morningstar Paisley Inc, Itajai
TAPIOCA FLOUR—728 bgs, American Key Products, Itajai
4,410 bgs, Morningstar Paisley Inc, Itajai
440 bgs, Stein Hall & Co, Lome
2,200 bgs, Zilka & Sons, Lome
TARA POWDER—131 bgs, Foreign Domestic Distributors, Callao
TARTARIC ACID—240 bgs, Nylos Trading Co, Genoa
2,500 bgs, Leonhardt & Brush, Palamos
TETRACHLOROETHYLENE—3,417 tons, Venice
TONKA BEANS—57 cks, Machado & Co, Port of Spain
TRICHLOROACETIC ANHYDRIDE—1 cs, London
TRICHLOROETHYLENE—92 dms, Chemical Manufacturing Co, Liverpool
499 tons, Chemical Manufacturing Co, Liverpool
15 cans, Hamburg
TURMERIC—157 bgs, A Beckmann, Callao
UMBER—335 bgs, Chase Manhattan Bank, Larnaca
380 bgs, Smith Chemical & Color Co, Larnaca
VANILLA BEANS—146 cs, L A Champon & Co, Tamatave
132 cs, Chase Manhattan Bank, Tamatave
25 cs, Gillespie & Co, Tamatave
33 cs, Dammann & Co, Tamatave
VEGETABLE OIL—15 dms, Peder Devold Oil Co, Rotterdam
VETIVER OIL—3 dms, Polarome Manufacturing Co, Port Au Prince
2 dms, National City Bank, Tamatave
WATTLE BARK—1,077 bls, National City Bank, Capetown
WAX—70 bgs, Hostawax Co, Bremen
15 dms, Hostawax Co, Bremen
WAX, SYNTHETIC—2,800 bgs, Moore & Munger, Durban
YACCA GUM—220 bgs, Port Adelaide
ZINC CHLORIDE—42 dms, Antwerp
ZINC CYANIDE—40 dms, Chemical Manufacturing Co, Liverpool
ZINC OXIDE—82 bgs, Smith Chemical & Color Co, Havre
1,440 bgs, Imperial Paper & Color Corp, Vera Cruz

Los Angeles

ALUMINUM OXIDE, ABRASIVE GRAIN—240 bgs, F Davis Co, Hamburg
CASSIA—160 bgs, Hismoco American Co, Singapore
COPRA—500 tons, Wells Fargo Bank, Tobaco
800 tons, Procter & Gamble Co, Cebu
2,520 tons, Vegetable Oil Products Co, Majuro
750 tons, Cargill Inc, Cebu
500 tons, American Trust Co, Cebu
CUMIN SEED—100 bgs, C M Van Sillevoldt, Hong Kong
FISHMEAL—2,174 bgs, Marine Midland Trust Co, Iquique
8,870 bgs, Marine & Animal By Products, Arica
800 bgs, Callao
FUEL OIL—153,492 bbls, California Transport Corp, Caracas Bay
PEPPER, BLACK—490 bgs, C Czarinkow, Singapore
PETROLEUM, CRUDE—318,727 bbls, Richfield Oil Corp, Mina Al Ahmadi
SILICON CARBIDE—120 bgs, F Davis Co, Hamburg
TAPIOCA FLOUR—1,008 bgs, Stein Hall & Co, Kohsichang
7,920 bgs, Morningstar Paisley Inc, Kohsichang

Philadelphia

BLANC FIXE—1,200 bgs, Wagner Co, Rotterdam
CASTOR OIL—300 tons, Phila National Bank, Santos
GYPSUM, CRUDE—11,237 tons, National Gypsum Co, Halifax
LICORICE ROOT—7,273 bls, MacAndrews & Forbes, Leningrad
MOLASSES—991,685 gals, S Western Sugar & Molasses Co, Barahona
640,694 gals, S Western Sugar & Molasses Co, Haina
922,377 gals, S Western Sugar & Molasses Co, La Roma
NAPHTHA—117,651 bbls, Texaco Co, Puerto La Cruz
OLIVE OIL—200 dms, Smith Weihman Co, Lisbon
PHOSFATE ROCK—4,000 tons, H J Baker & Bro, Curacao
POTASSIUM BICARBONATE—51 cks, J T Baker Chemical Co, Rotterdam
SODIUM SILICOFLUORIDE—600 bgs, Riches Nelson, Rotterdam
TAPIOCA FLOUR—829 bgs, Poons Co, Kohsichang
UREA—600 bgs, Friedman Co, Rotterdam

San Francisco

ASBESTOS FIBER—5,800 bgs, Johns Manville Corp, Durban
220 bgs, N American Asbestos Corp, Durban
4,780 bgs, Keasby & Mattison, Lourenco Marques
BONEMEAL—844 tons, Stauffer Chemical Co, Buenos Aires
CASEIN—120 bgs, Borden Co, Buenos Aires
1,000 bgs, E Lang, Buenos Aires
CLOVE—80 bgs, Zanzibar
CODLIVER OIL—10 dms, W A Siebert, Bergen
EARTH COLORS—675 bgs, Naftone Inc, Bremen
FUEL OIL—124,024 bbls, Standard Oil Co, Aruba
MACE—14 cs, Hismoco American Co, Singapore
MINERAL COLORS—19 bgs, Revelli Chemicals, Hamburg
NAPHTHA—11,717 tons, Union Oil Co, Matsuyama
NUTMEG—25 bgs, Chemical Bank, Port of Spain
OXALIC ACID—130 bgs, P W Bellingall, Amsterdam
PAPRIKA—75 bgs, West Coast Spice Co, Hamburg
PEPPER, BLACK—35 bgs, California Commodities Corp, Singapore
PETROLEUM, CRUDE—304,333 bbls, Richfield Oil Co, Dumai
SODIUM SILICOFLUORIDE—400 bgs, S Sundheimer, Esbejerg

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- Cetyl Trimethyl Ammonium Bromide (BROMAT, CETAB)
- Cetyl Trimethyl Ammonium Stearate (CETA Stearate)
- Cetyl Dimethyl Benzyl Ammonium Chloride (CETOL)
- Cetyl Pyridinium Chloride U.S.P.
- Cetyl Pyridinium Toluenesulfonate
- Higher Alkyl Dimethyl Dichlorbenzyl Ammonium Chloride (DICHLORAN)
- Stearyl Dimethyl Benzyl Ammonium Chloride (STEDBAC)
- Stearyl, Cetyl and Lauryl Trimethyl Ammonium Toluenesulfonates

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